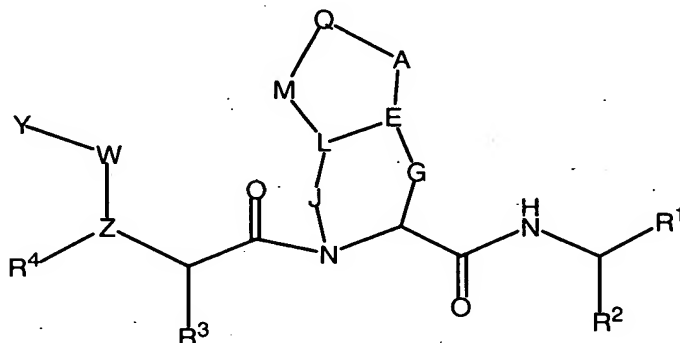


**IN THE CLAIMS**

1. (currently amended) A compound, including enantiomers, stereoisomers, rotamers, tautomers, racemates and prodrug of said compound, and pharmaceutically acceptable salts or solvates of said compound, or of said prodrug, said compound having the general structure shown in Formula I:



Formula I

wherein:

Y is selected from the group consisting of the following moieties: alkyl, alkyl-aryl, heteroalkyl, heteroaryl, aryl-heteroaryl, alkyl-heteroaryl, cycloalkyl, alkyloxy, alkyl-aryloxy, aryloxy, heteroaryloxy, heterocycloalkyloxy, cycloalkyloxy, alkylamino, arylamino, alkyl-aryl-amino, arylamino, heteroaryl-amino, cycloalkyl-amino and heterocycloalkyl-amino, with the proviso that Y ~~maybe~~ may be optionally substituted with  $X^{11}$  or  $X^{12}$ ;

$X^{11}$  is alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkyl-alkyl, heterocyclyl, heterocyclyl-alkyl, aryl, alkylaryl, arylalkyl, heteroaryl, alkylheteroaryl, or heteroarylalkyl, with the proviso that  $X^{11}$  may be additionally optionally substituted with  $X^{12}$ ;

$X^{12}$  is hydroxy, alkoxy, aryloxy, thio, alkylthio, arylthio, amino, alkylamino, arylamino, alkylsulfonyl, arylsulfonyl, alkylsulfonamido, arylsulfonamido, carboxy, carbalkoxy,

carboxamido, alkoxycarbonylamino, alkoxycarbonyloxy, alkylureido, arylureido, halogen, cyano, or nitro, with the proviso that said alkyl, alkoxy, and aryl may be additionally optionally substituted with moieties independently selected from  $X^{12}$ ;

$R^1$  is  $COR^5$  or  ~~$B(OR)_2$~~ , wherein  $R^5$  is  ~~$NR^9R^{10}COOR^8$ ,  $CONR^9R^{10}$ ,  $CF_3$ ,  $C_2F_5$ ,  $C_3F_7$ ,  $CF_2R^6$ , or  $R^6$ , or  $COR^7$~~  wherein  ~~$R^7$  is H, OH,  $OR^8$ ,  $CHR^9R^{10}$ , or  $NR^9R^{10}$~~ , wherein  $R^6$ ,  $R^8$ ,  $R^9$  and  $R^{10}$  are independently selected from the group consisting of H, alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl, ~~cycloalkyl~~, arylalkyl, heteroarylalkyl,  $[CH(R^1')]_pCOOR^{11}$ ,  $[CH(R^1')]_pCONR^{12}R^{13}$ ,  $[CH(R^1')]_pSO_2R^{11}$ ,  $[CH(R^1')]_pCOR^{11}$ ,  $[CH(R^1')]_pCH(OH)R^{11}$ ,  $CH(R^1')CONHCH(R^{2'})COO R^{11}$ ,  $CH(R^1')CONHCH(R^{2'})CONR^{12}R^{13}$ ,  $CH(R^1')CONHCH(R^{2'})R'$ ,  $CH(R^1')CONHCH(R^{2'})CONHCH(R^{3'})COO R^{11}$ ,  $CH(R^1')CONHCH(R^{2'})CONHCH(R^{3'})CONR^{12}R^{13}$ ,  $CH(R^1')CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})COO R^{11}$ ,  $CH(R^1')CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONR^{12}R^{13}$ ,  $CH(R^1')CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONHCH(R^{5'})COO R^{11}$  and  $CH(R^1')CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONHCH(R^{5'})CONR^{12}R^{13}$ , wherein  $R^{1'}$ ,  $R^{2'}$ ,  $R^{3'}$ ,  $R^{4'}$ ,  $R^{5'}$ ,  $R^{11}$ ,  $R^{12}$ , and  $R^{13}$  are independently selected from the group consisting of H, alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl, alkyl-aryl, alkyl-heteroaryl, aryl-alkyl and heteroarylalkyl;

Z is selected from O, N, CH or CR;

W may be present or absent, and if W is present, W is selected from C=O, C=S, C(=N-CN), or  $SO_2$ ;

Q may be present or absent, and when Q is present, Q is CH, N, P,  $(CH_2)_p$ ,  $(CHR)_p$ ,  $(CRR')_p$ , O, NR, S, or  $SO_2$ ; and when Q is absent, M may be present or absent; when Q and M are absent, A is directly linked to L;

A is O,  $CH_2$ ,  $(CHR)_p$ ,  $(CHR-CHR')_p$ ,  $(CRR')_p$ , NR, S, or  $SO_2$ ;

E is CH, N, CR, or a double bond towards A, or ~~L or G~~;

~~G may be present or absent, and when G is present, G is  $(CH_2)_p$ ,  $(CHR)_p$ , or  $(CRR')$ , and when G is absent, J is present and E is directly connected to the carbon atom in Formula I as G is linked to;~~

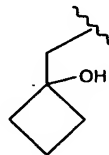
~~J may be present or absent, and when J is present, J is  $(CH_2)_p$ ,  $(CHR)_p$ , or  $(CRR')$ ,  $SO_2$ ,  $NH$ ,  $NR$  or  $O$ ; and when J is absent, G is present and E is directly linked to N shown in Formula I as linked to J;~~

~~L may be present or absent, and when L is present, L is  $CH$ ,  $CR$ ,  $O$ ,  $S$  or  $NR$ ; and when L is absent, then M may be present or absent; and if M is present with L being absent, then M is directly and independently linked to E, and J is directly and independently linked to E;~~

M may be present or absent, and when M is present, M is  $O$ ,  $NR$ ,  $S$ ,  $SO_2$ ,  $(CH_2)_p$ ,  $(CHR)_p$ ,  $(CHR-CHR')$ , or  $(CRR')$ ;

p is a number from 0 to 6; and

R, R', R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are independently selected from the group consisting of H; C<sub>1</sub>-C<sub>10</sub> alkyl; C<sub>2</sub>-C<sub>10</sub> alkenyl; C<sub>3</sub>-C<sub>8</sub> cycloalkyl; C<sub>3</sub>-C<sub>8</sub> heterocycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, urea, ketone, aldehyde, cyano, nitro, halogen; (cycloalkyl)alkyl and (heterocycloalkyl)alkyl, wherein said cycloalkyl is made of three to eight carbon atoms, and zero to six oxygen, nitrogen, sulfur, or phosphorus atoms, and said alkyl is of one to six carbon atoms; aryl; heteroaryl; alkyl-aryl; ~~and alkyl-heteroaryl;~~ and further with respect to R<sup>2</sup>, the group

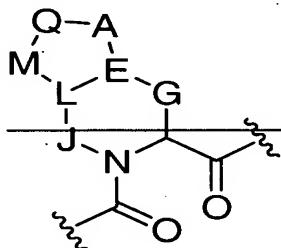


wherein said alkyl, heteroalkyl, alkenyl, heteroalkenyl, aryl, heteroaryl, cycloalkyl and heterocycloalkyl moieties may be optionally and chemically-suitably substituted, with said term

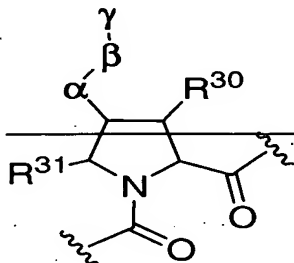
"substituted" referring to optional and chemically-suitable substitution with one or more moieties selected from the group consisting of alkyl, alkenyl, alkynyl, aryl, aralkyl, cycloalkyl, heterocyclic, halogen, hydroxy, thio, alkoxy, aryloxy, alkylthio, arylthio, amino other than for  $R^2$ , amido, ester, carboxylic acid, carbamate, urea, ketone, aldehyde, cyano, nitro, sulfonamido, sulfoxide, sulfone, sulfonyl urea, hydrazide, and hydroxamate;

further wherein said unit N-C-G-E-L-J-N represents a five-membered or six-membered cyclic ring structure with the proviso that when said unit N-C-G-E-L-J-N represents a five-membered cyclic ring structure, or when the bicyclic ring structure in Formula I comprising N, C, G, E, L, J, N, A, Q, and M represents a five-membered cyclic ring structure, then said five-membered cyclic ring structure lacks a carbonyl group as part of the cyclic ring;

~~provided that in Formula I when W is C=O and the moiety:~~



~~represents the structure:~~



~~where  $R^{30}$  and  $R^{31}$  are independently H, alkyl, alkenyl, aryl, aralkyl, aralkenyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroarylalkyl, with  $R^{30}$  and  $R^{31}$  being optionally substituted with 1-3  $R^{32}$~~

~~substituents selected from alkyl, aryl, aralkyl, alkoxy, aryloxy, aralkoxy, cycloalkyl, cycloalkoxy, heterocyclyl, heterocyclyloxy, heterocycylalkyl, keto, hydroxy, amino, alkylamino, alkanoylamino, aroylalamino, aralkanoylamino, carboxy, carboxyalkyl, carboxamidoalkyl, halo, cyano, nitro, formyl, acetyl, sulfonyl, or sulfonamido, wherein said R<sup>33</sup> substituents can be optionally substituted with alkyl, aryl, aralkyl, alkoxy, aryloxy, heterocyclyl, heterocyclyloxy, keto, hydroxy, amino, alkanoylamino, aroylamino, carboxy, carboxyalkyl, carboxamidoalkyl, halo, cyano, nitro, formyl, sulfonyl or sulfonamido,~~

~~$\alpha$  is a bond, C(H)(R<sup>34</sup>), O, S, or N(R<sup>35</sup>), where R<sup>34</sup> is H, alkyl, alkenyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, or heteroaralkyl and is optionally substituted with 1-3 R<sup>33</sup> substituents, and R<sup>35</sup> is H, alkyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, heteroaralkyl, C(O)R<sup>36</sup>, SO<sub>2</sub>R<sup>36</sup>, or carboxamido and is optionally substituted with 1-3 R<sup>33</sup> substituents, or R<sup>35</sup> and  $\gamma$  together with the atoms to which they are bound, form a nitrogen containing mono or bicyclic ring system optionally substituted with 1-3 R<sup>33</sup> substituents, and R<sup>36</sup> is alkyl, aryl, aralkyl, heterocyclyl, heterocyclylalkyl, heteroaryl or heteroaralkyl,~~

~~$\beta$  is a bond, CH<sub>2</sub>, C(O), C(O)C(O), S(O), S(O)<sub>2</sub>, or S(O)R<sup>34</sup>,~~

~~$\gamma$  is alkyl, alkenyl, aryl, aralkyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, heteroaralkyl, OR<sup>37</sup> or N(R<sup>37</sup>)<sub>2</sub>, wherein any carbon atom is optionally substituted with R<sup>33</sup>, wherein R<sup>37</sup> is independently H, alkyl, alkenyl, aryl, aralkyl, aralkenyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heteroaryl, or~~

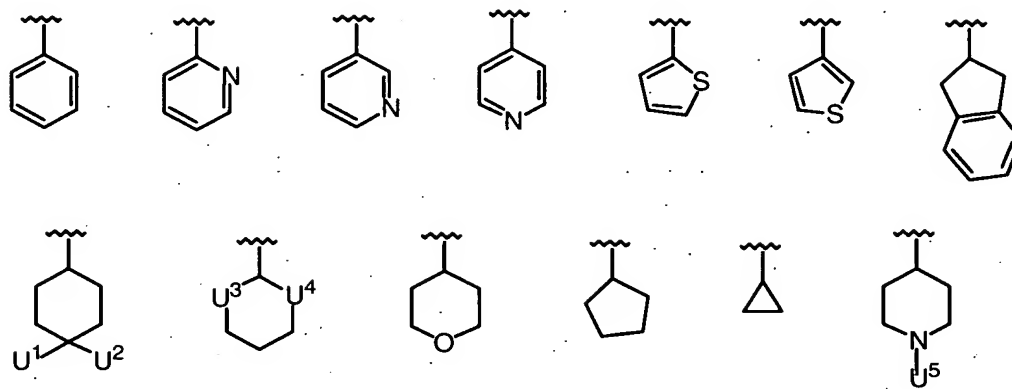
heteroaralkyl, wherein any carbon of  $R^{32}$  is optionally substituted with  $R^{33}$ ;

then  $R^{10}$  is H and  $R^8$  and  $R^9$  are independently selected from the group consisting of  $CH(R^{1'})CONHCH(R^{2'})COOR^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CONHCH(R^{2'})R'$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})COOR^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})COOR^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONHCH(R^{5'})COOR^{11}$  and  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONHCH(R^{5'})CONR^{12}R^{13}$ , and

provided that the proline at the P2 position is modified, wherein the P2 position is the position corresponding to the second amino acid from the keto amide group.

2. (canceled)

3. (currently amended) The compound of claim 21, wherein  $R^1$  is  $COCONR^9R^{10}$ , and  $R^9$  is H,  $R^{10}$  is H,  $R^{14}$ ,  $\{CH(R^{1'})\}_pCOOR^{11}CH(R^{1'})COOR^{11}$ ,  $CH(R^{1'})CH(R^{1'})COOR^{11}$ ,  $\{CH(R^{1'})\}_pCONR^{12}R^{13}CH(R^{1'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CH(R^{1'})CONR^{12}R^{13}$ ,  $\{CH(R^{1'})\}_pSO_2R^{11}CH(R^{1'})SO_2R^{11}$ ,  $\{CH(R^{1'})\}_pSO_2NR^{12}R^{13}$ ,  $CH(R^{1'})SO_2NR^{12}R^{13}$ ,  $\{CH(R^{1'})\}_pCOR^{11}$ ,  $CH(R^{1'})CH(R^{1'})COR^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})COOR^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONR^{12}R^{13}$ , or  $CH(R^{1'})CONHCH(R^{2'})(R')$ , wherein  $R^{14}$  is H, alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl, alkyl-aryl, alkyl-heteroaryl, aryl-alkyl, alkenyl, alkynyl or heteroaralkyl; wherein  $R^{1'}$  is H or alkyl, and  $R^{2'}$  is phenyl, substituted phenyl, hetero atom-substituted phenyl, thiophenyl, cycloalkyl, piperidyl or pyridyl; and wherein  $R^{11}$  is H, methyl, ethyl, allyl, tert-butyl, benzyl,  $\alpha$ -methylbenzyl,  $\alpha,\alpha$ -dimethylbenzyl, 1-methylcyclopropyl or 1-methylcyclopentyl;  $R'$  is hydroxymethyl or  $CH_2CONR^{12}R^{13}$ ;  $R^{2'}$  is independently selected from the group consisting of:



wherein:

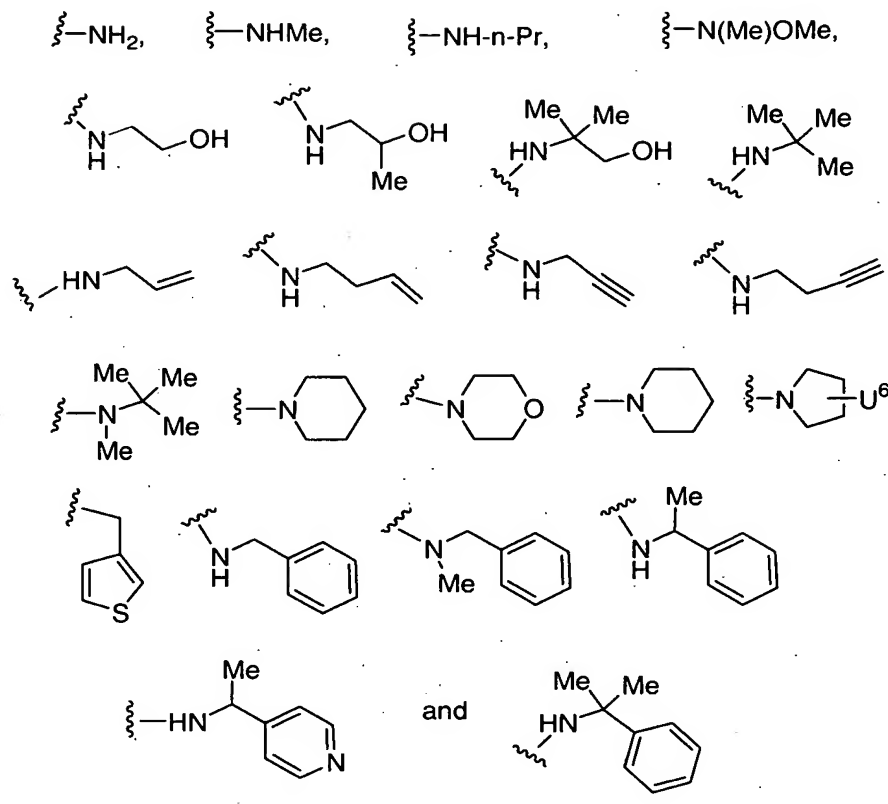
$U^1$  and  $U^2$  maybe same or different and are selected from H, F,  $CH_2COOH$ ,  $CH_2COOMe$ ,  $CH_2CONH_2$ ,  $CH_2CONHMe$ ,  $CH_2CONMe_2$ , azido, amino, hydroxyl, substituted amino, substituted hydroxyl;

$U^3$  and  $U^4$  maybe same or different and are selected from O and S;

$U^5$  is selected from the moieties consisting of alkyl sulfonyl, aryl sulfonyl, heteroalkyl sulfonyl, heteroaryl sulfonyl, alkyl carbonyl, aryl carbonyl, heteroalkyl carbonyl, heteroaryl carbonyl, alkoxy carbonyl, aryloxy carbonyl,

heteroaryloxy carbonyl, alkylaminocarbonyl, arylaminocarbonyl, heteroarylamino carbonyl or a combination thereof;

and  $NR^{12}R^{13}$  is selected from the group consisting of:



wherein  $U^6$  is H, OH, or  $CH_2OH$ , and

$R^{14}$  is selected from the group consisting of: H, Me, Et, *n*-propyl, methoxy, cyclopropyl, *n*-butyl, 1-but-3-ynyl, benzyl,  $\alpha$ -methylbenzyl, phenethyl, allyl, 1-but-3-enyl, OMe, cyclopropylmethyl.

4. (canceled)

5. (canceled)

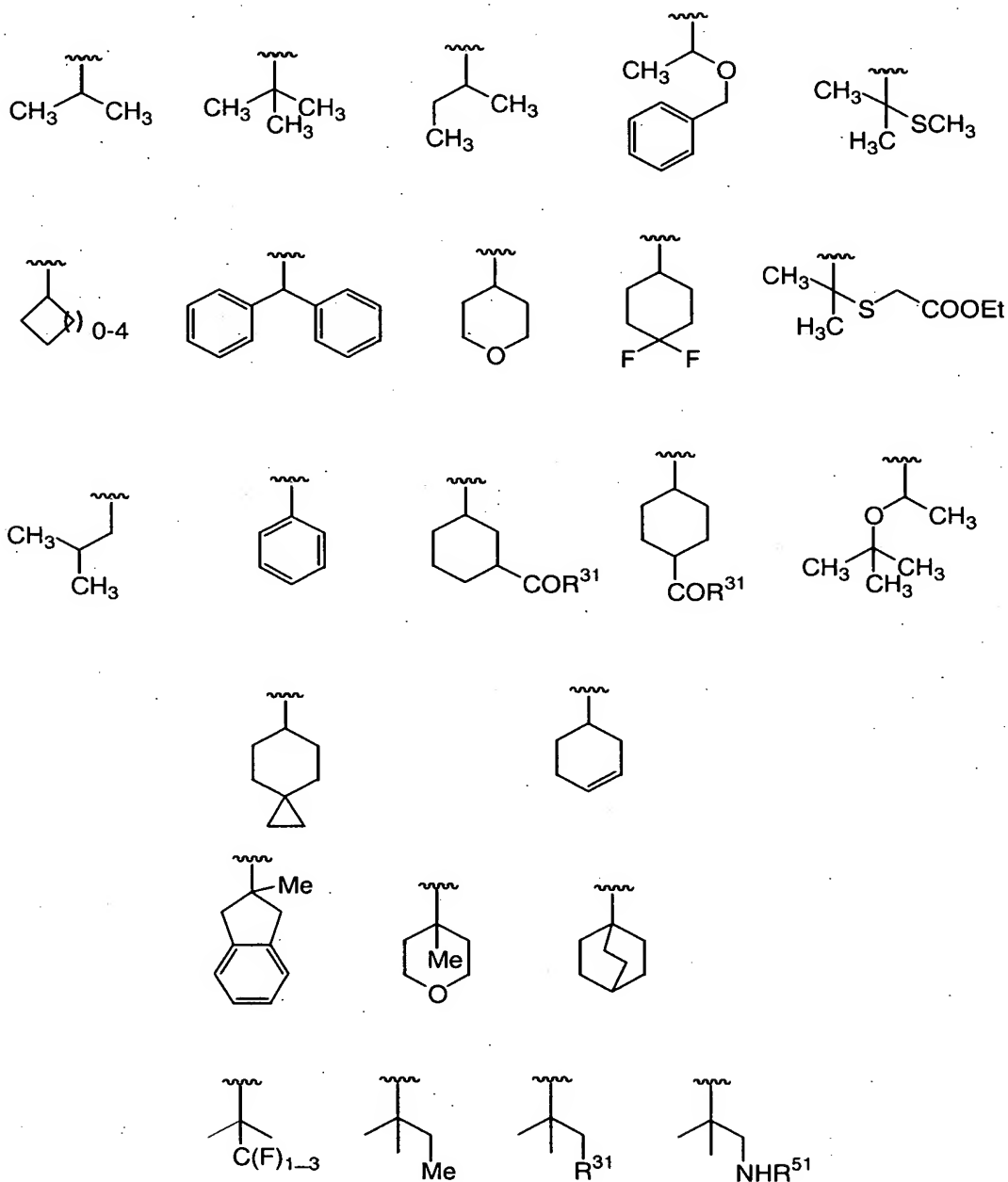
6. (canceled)

7. (currently amended) The compound of claim 23, wherein  $R^2$  is selected from the group consisting of the following moieties:

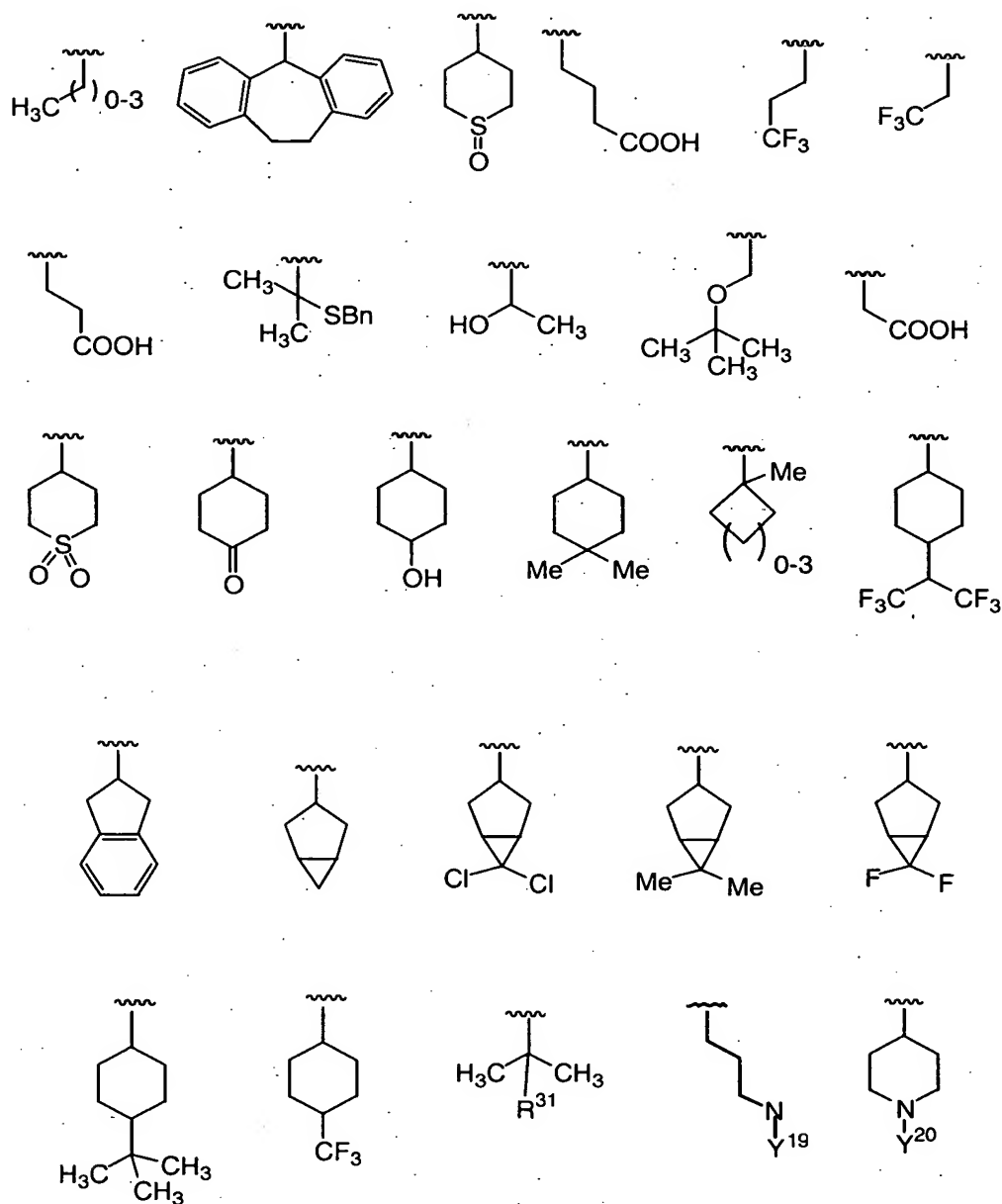




8. (original) The compound of claim 7, wherein  $R^3$  is selected from the group consisting of:

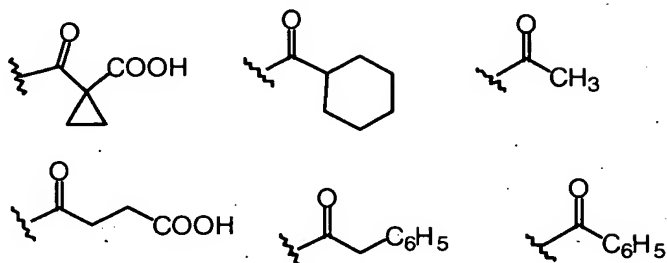


wherein  $R^{51} = H, COCH_3, COOtBu$  or  $CONHtBu$

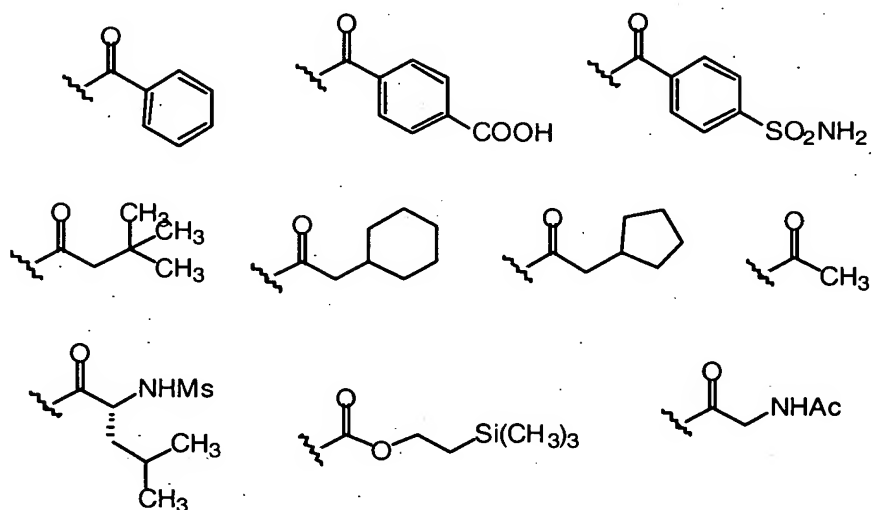


wherein  $\text{R}^{31} = \text{OH}$  or O-alkyl;

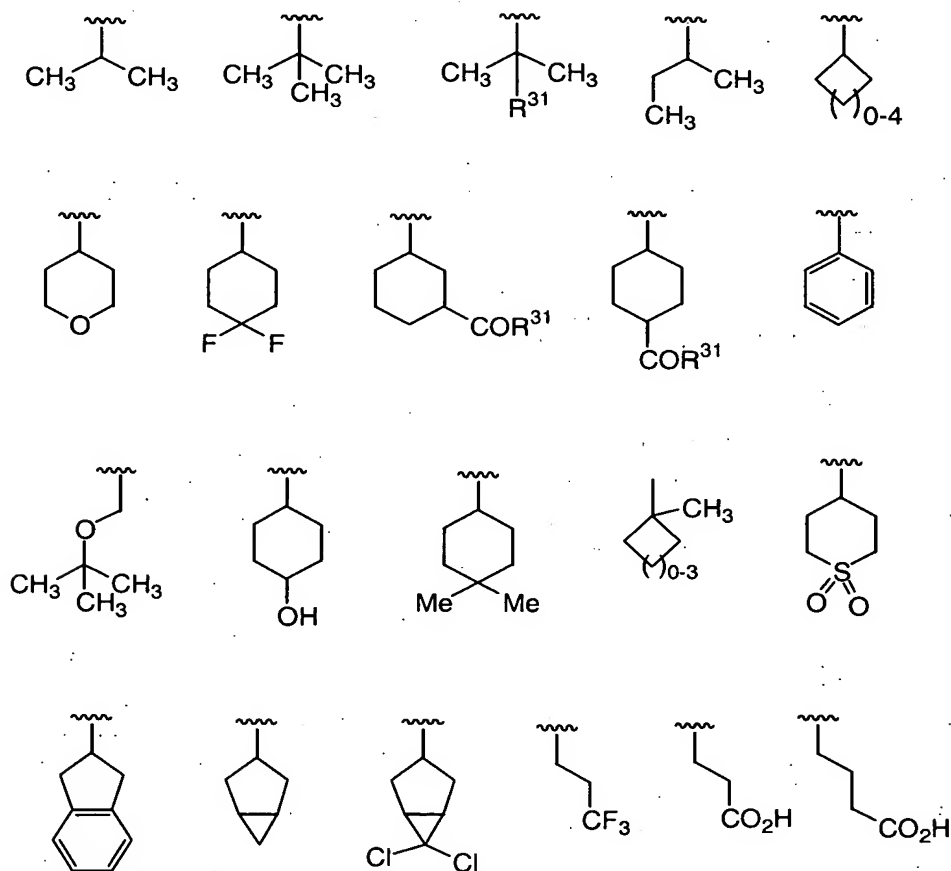
$\text{Y}^{19}$  is selected from the following moieties:



and  $Y^{20}$  is selected from the following moieties:



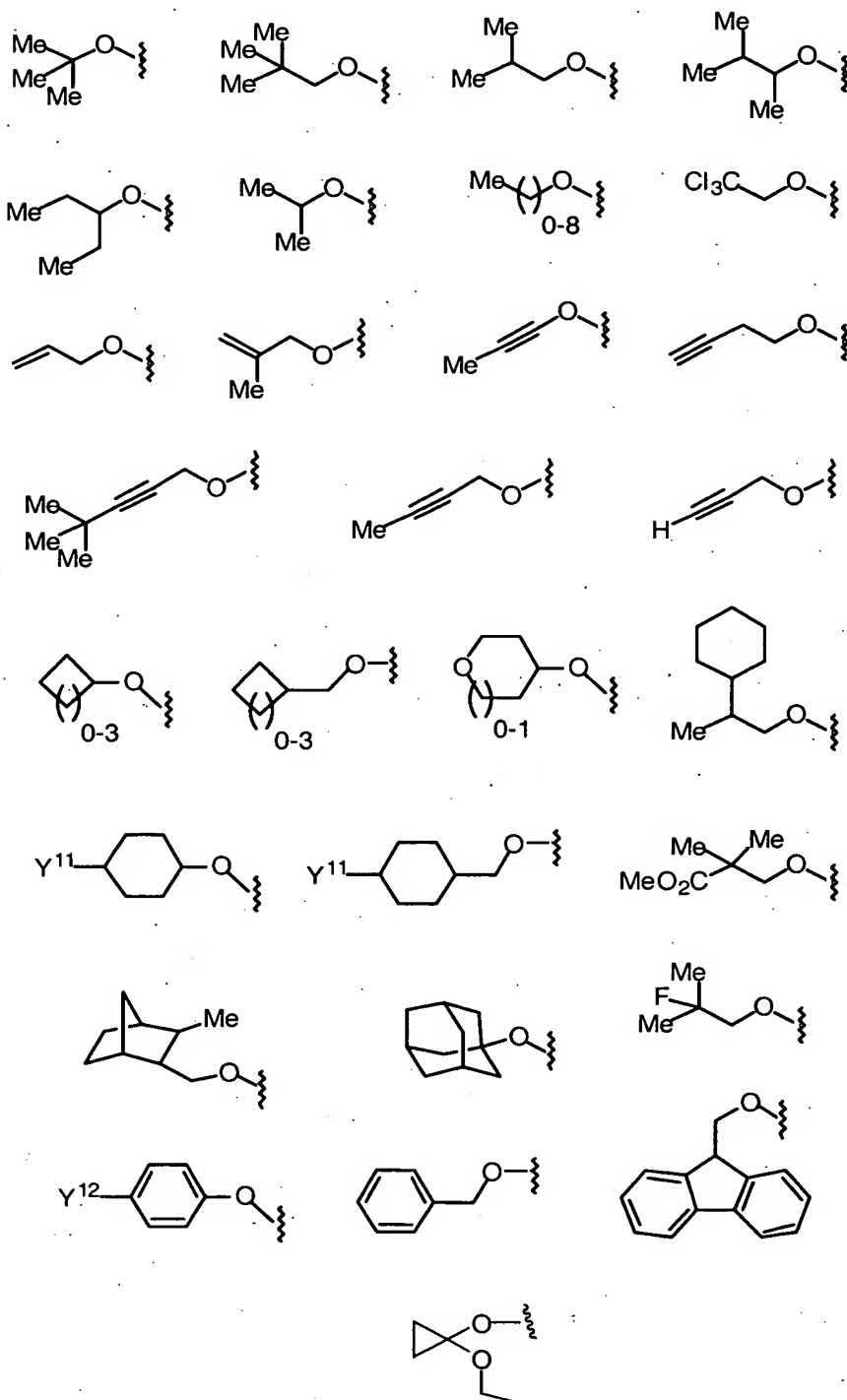
9. (original) The compound of claim 8, wherein  $R^3$  is selected from the group consisting of the following moieties:



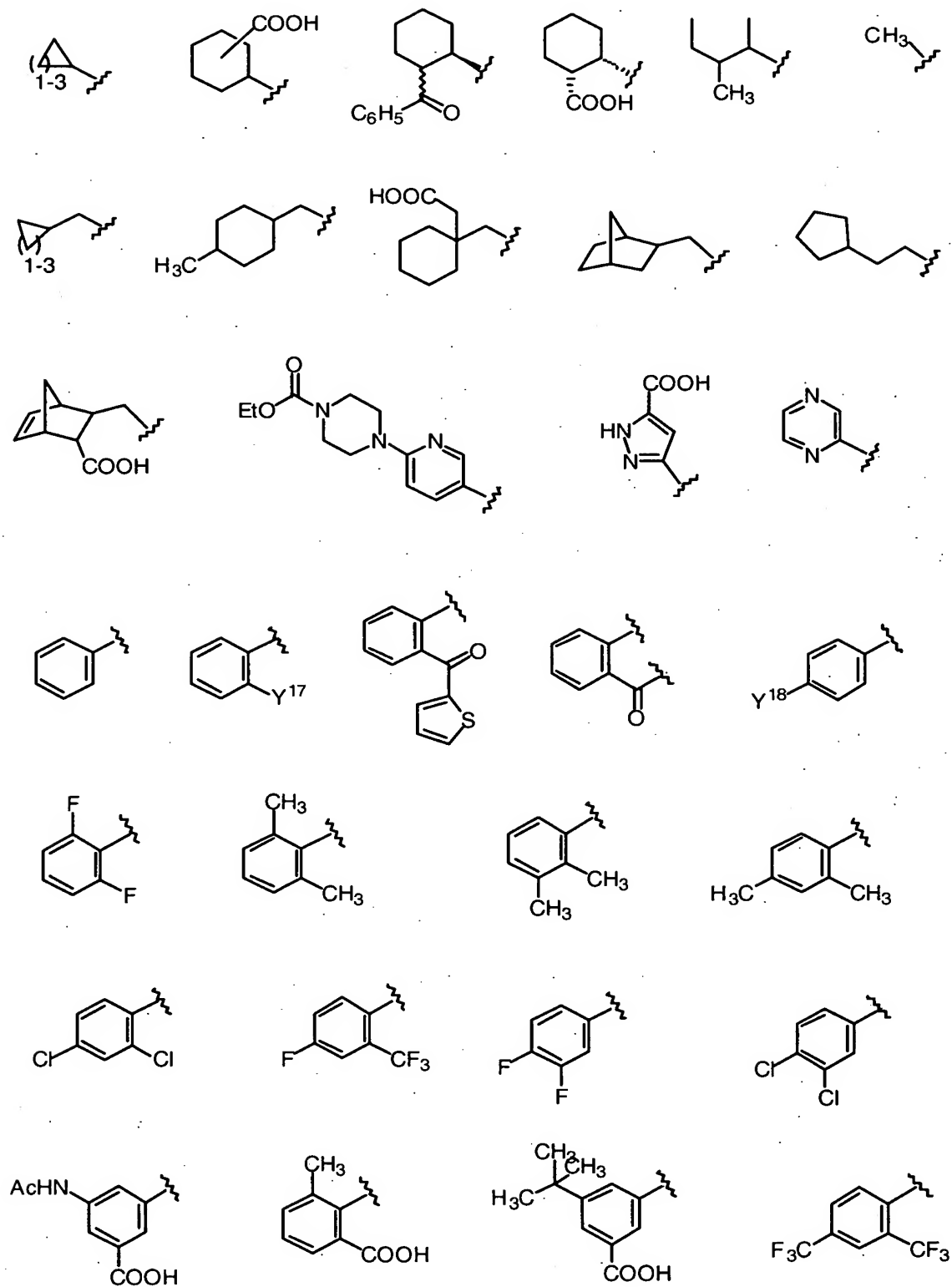
10. (original) The compound of claim 9, wherein  $Z$  is  $N$  and  $R^4$  is  $H$ .

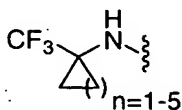
11. (original) The compound of claim 10, wherein W is C=O.

12. (original) The compound of claim 11, wherein Y is selected from the following moieties:

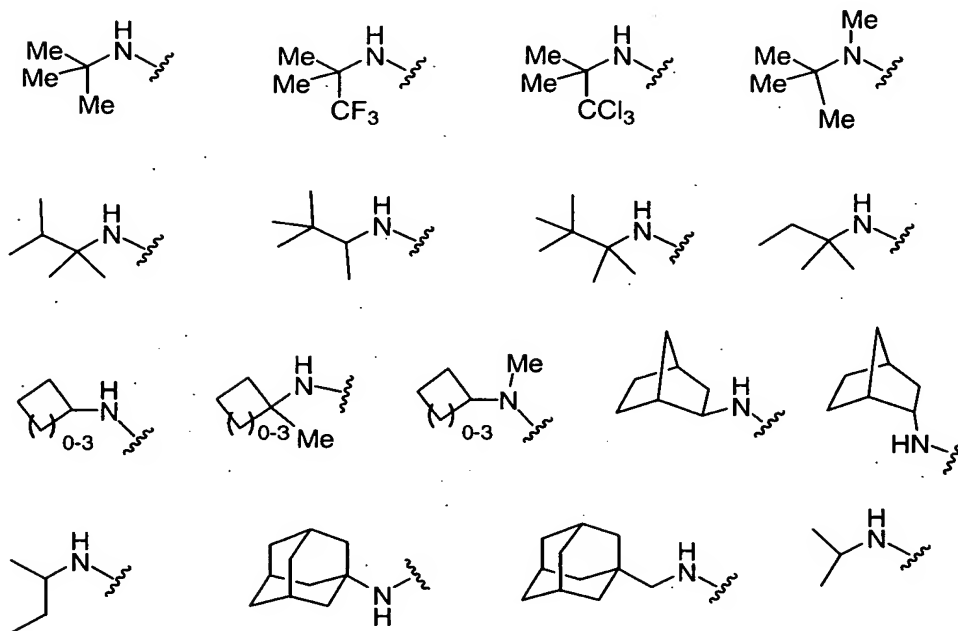










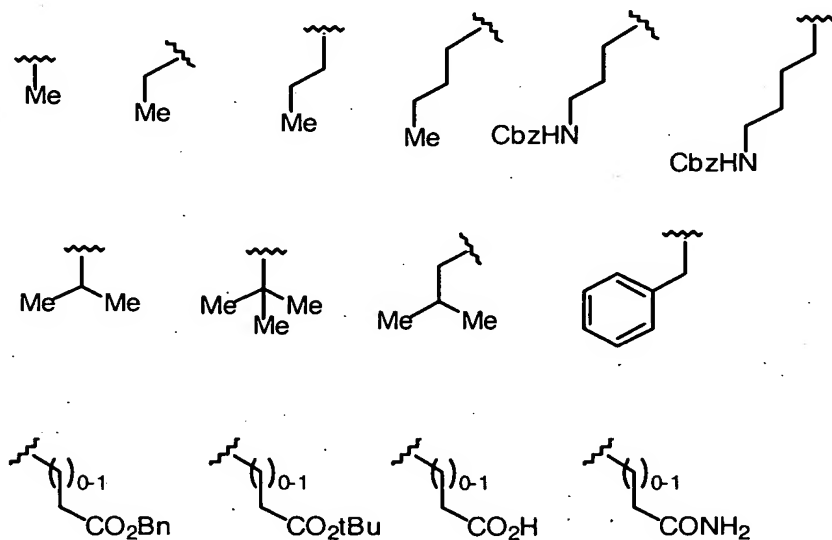


wherein:

$Y^{11}$  is selected from H, COOH, COOEt, OMe, Ph, OPh, NHMe, NHAc, NHPh, CH(Me)<sub>2</sub>, 1-triazolyl, 1-imidazolyl, and NHCH<sub>2</sub>COOH;

$Y^{12}$  is selected from H, COOH, COOMe, OMe, F, Cl, or Br;

$Y^{13}$  is selected from the following moieties:



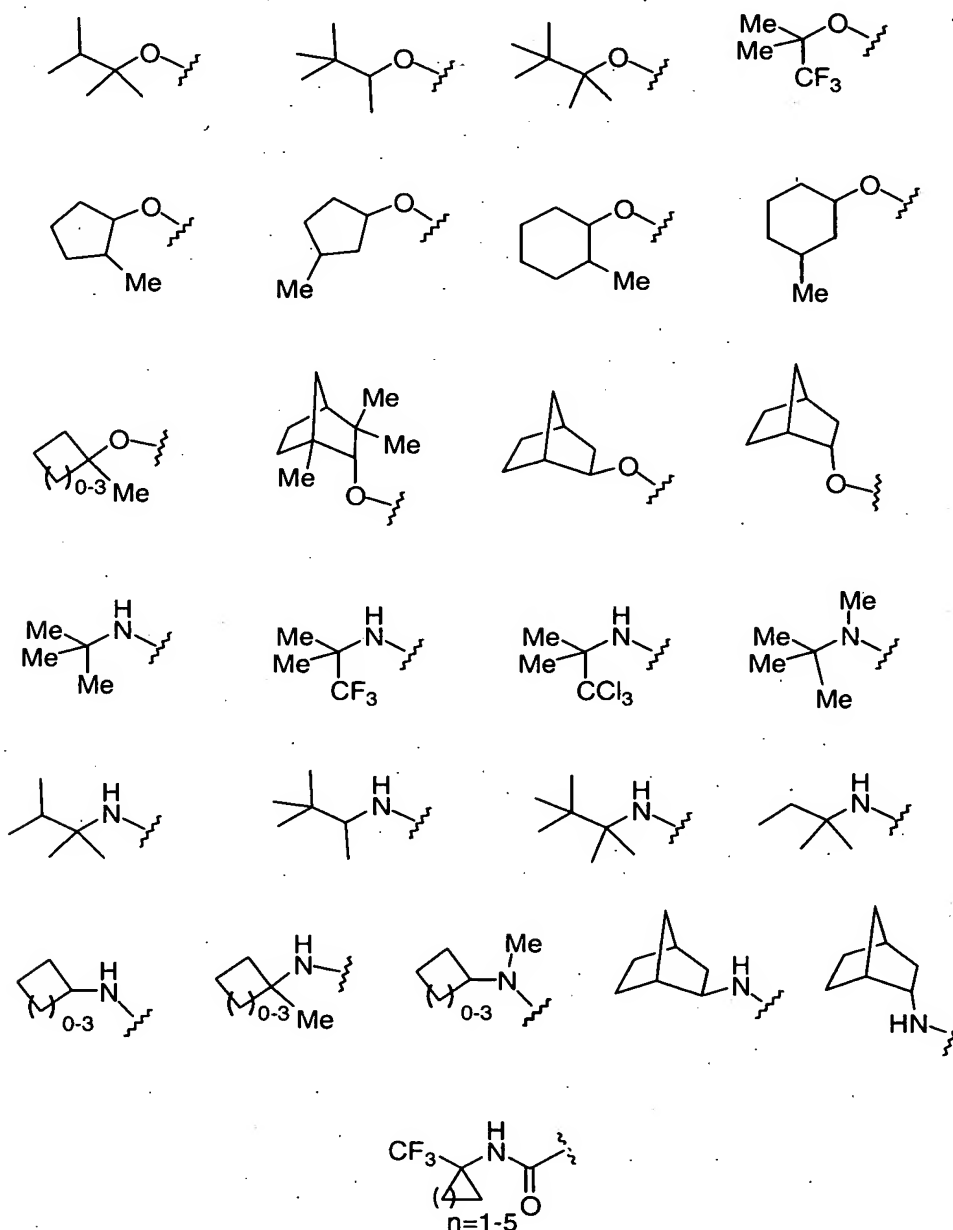
$Y^{14}$  is selected from MeSO<sub>2</sub>, Ac, Boc, iBoc, Cbz, or Alloc;

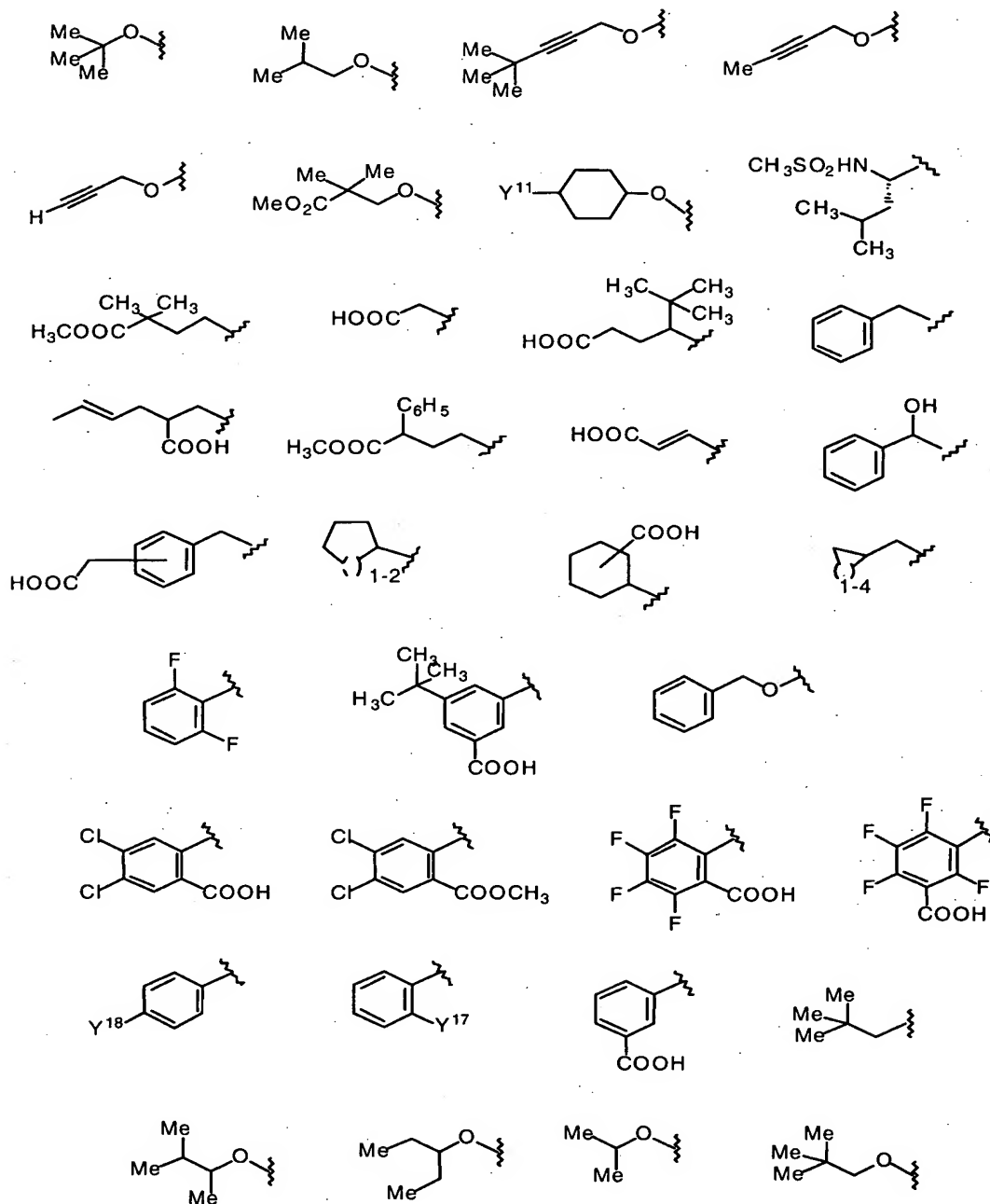
$Y^{15}$  and  $Y^{16}$  are independently selected from alkyl, aryl, heteroalkyl, and heteroaryl;

$Y^{17}$  is  $CF_3$ ,  $NO_2$ ,  $CONH_2$ ,  $OH$ ,  $COOCH_3$ ,  $OCH_3$ ,  $OC_6H_5$ ,  $C_6H_5$ ,  $COC_6H_5$ ,  $NH_2$ , or  $COOH$ ; and

$Y^{18}$  is  $COOCH_3$ ,  $NO_2$ ,  $N(CH_3)_2$ ,  $F$ ,  $OCH_3$ ,  $CH_2COOH$ ,  $COOH$ ,  $SO_2NH_2$ , or  $NHCOCH_3$ .

13. (original) The compound of claim 12, wherein Y is selected from the group consisting of:



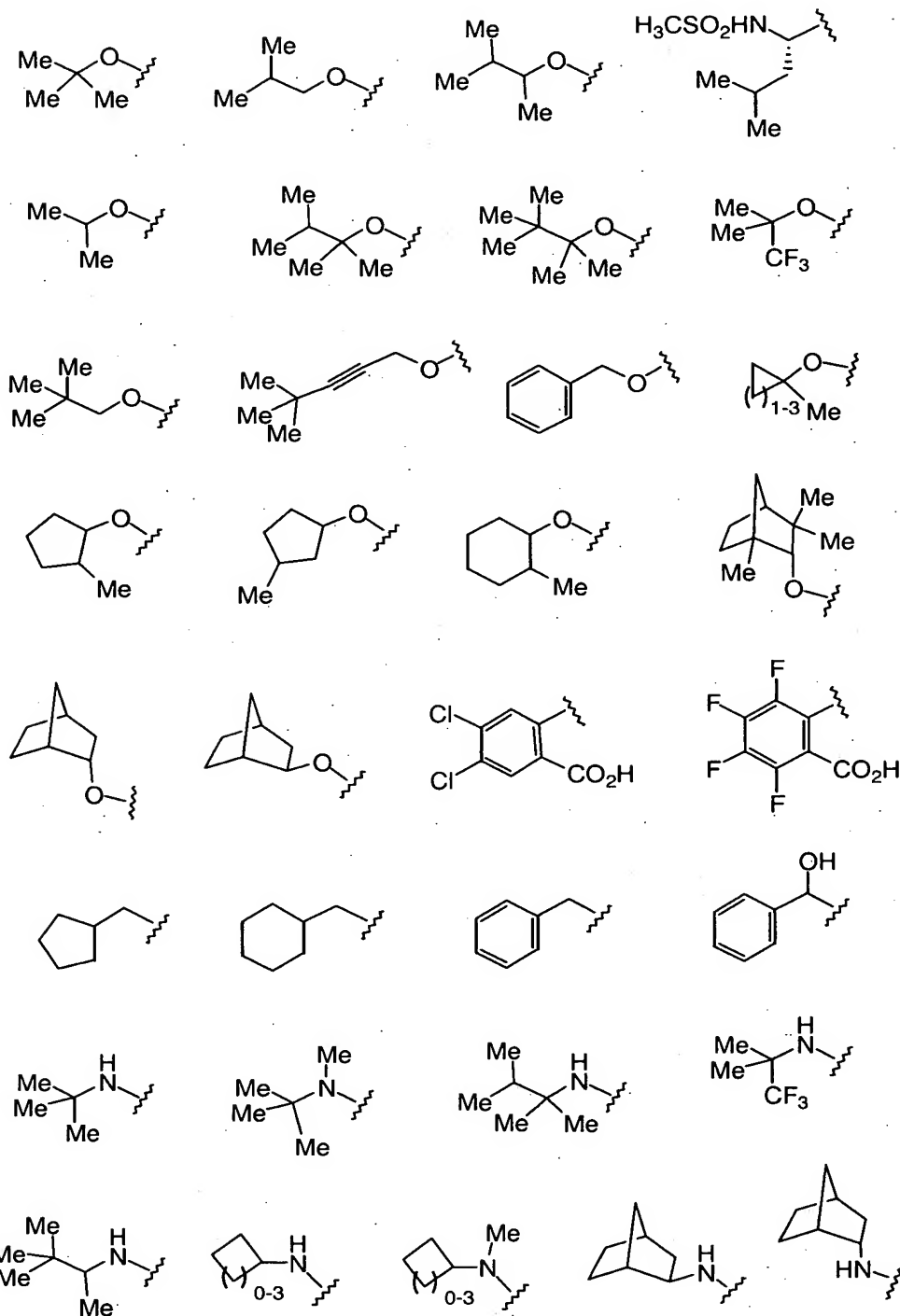


wherein:

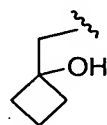
$Y^{17} = CF_3, NO_2, CONH_2, OH, NH_2, \text{ or } COOH;$

$Y^{18} = F, COOH,$

14. (original) The compound of claim 13, wherein Y is selected from the group consisting of:



15. (currently amended) The compound of claim 147, wherein  $R^2$  is the moiety:



~~L and M are absent, and J is directly linked to E.~~

16. (canceled)

17. (original) The compound of claim 14, wherein G and M are absent.

18. (canceled)

19. (canceled)

20. (canceled)

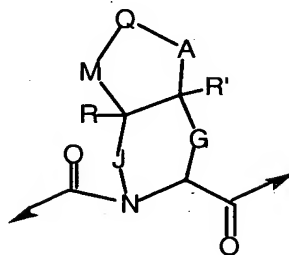
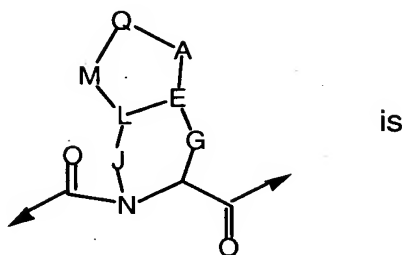
21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

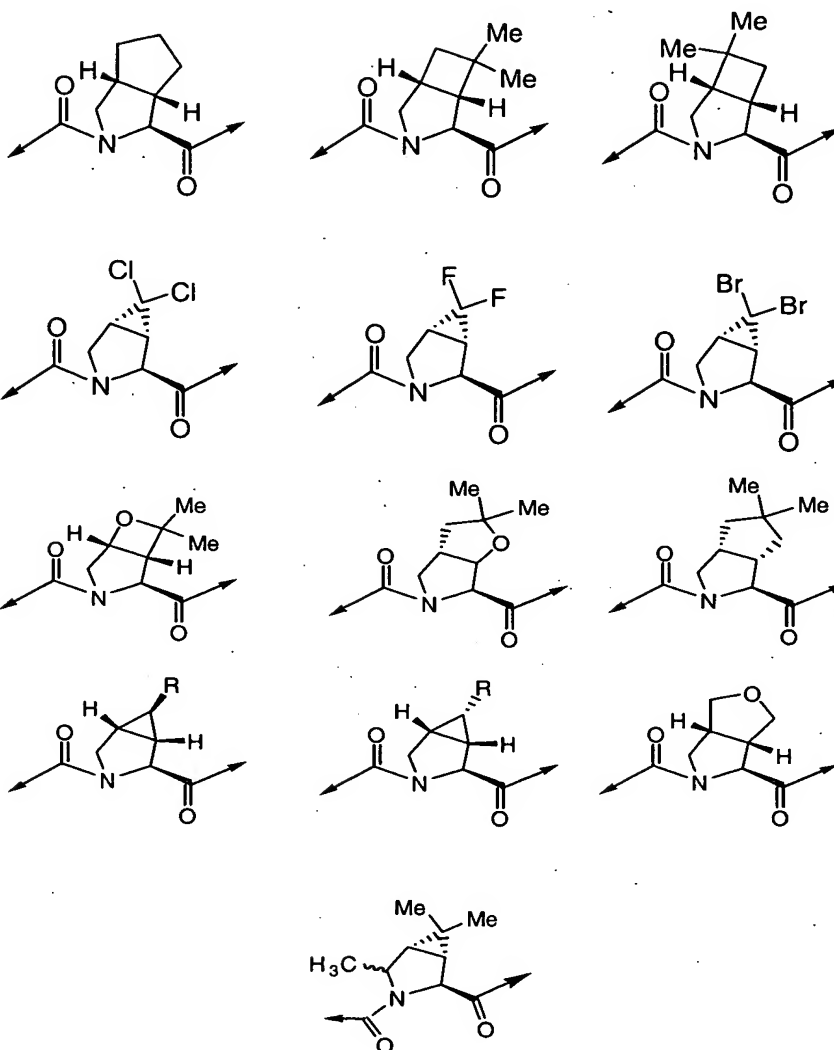
25. (currently amended) The compound of claim 14, wherein:

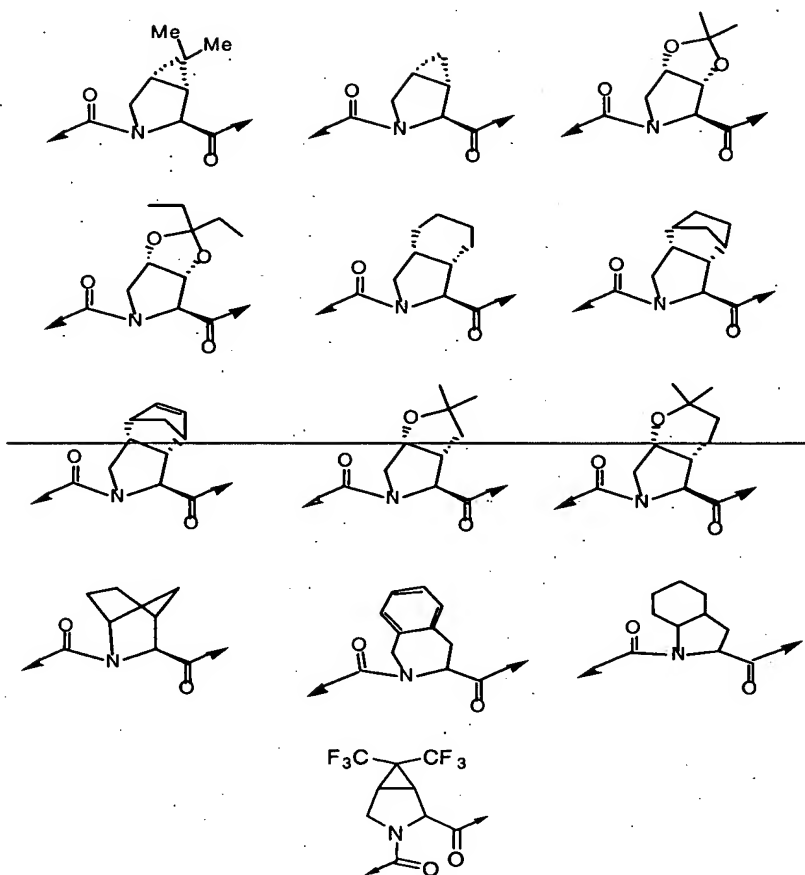


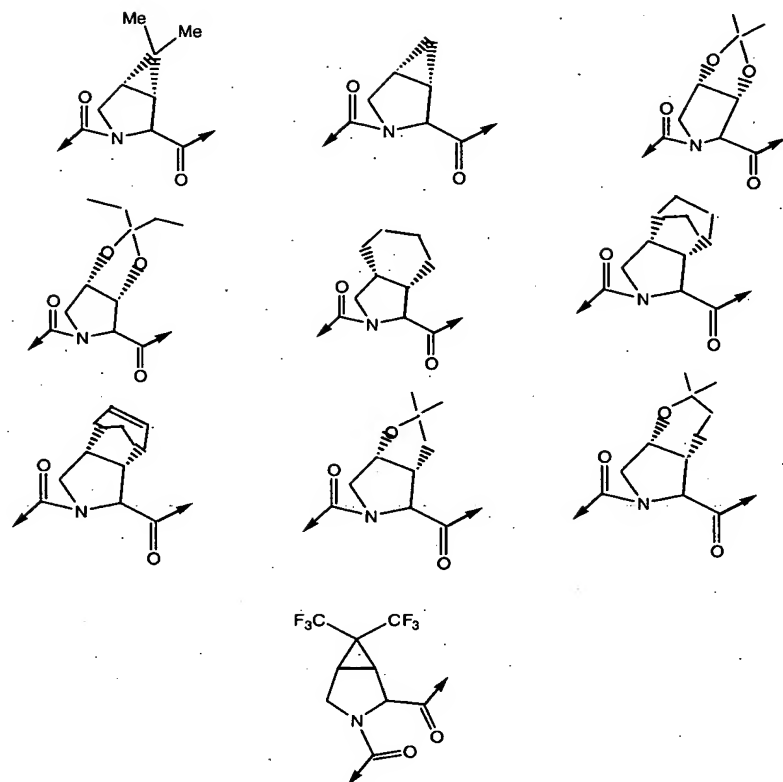
c

wherein G is absent and J ~~are independently~~is selected from the group consisting of  $(CH_2)_p$ ,  $(CHR)_p$ ,  $(CHR-CHR')_p$ , and  $(CRR')_p$ ; A and M are independently selected from the group consisting of O, S,  $SO_2$ , NR,  $(CH_2)_p$ ,  $(CHR)_p$ ,  $(CHR-CHR')_p$ , and  $(CRR')_p$ ; and Q is  $CH_2$ , CHR, CRR', NH, NR, O, S,  $SO_2$ , NR,  $(CH_2)_p$ ,  $(CHR)_p$ , and  $(CRR')_p$ .

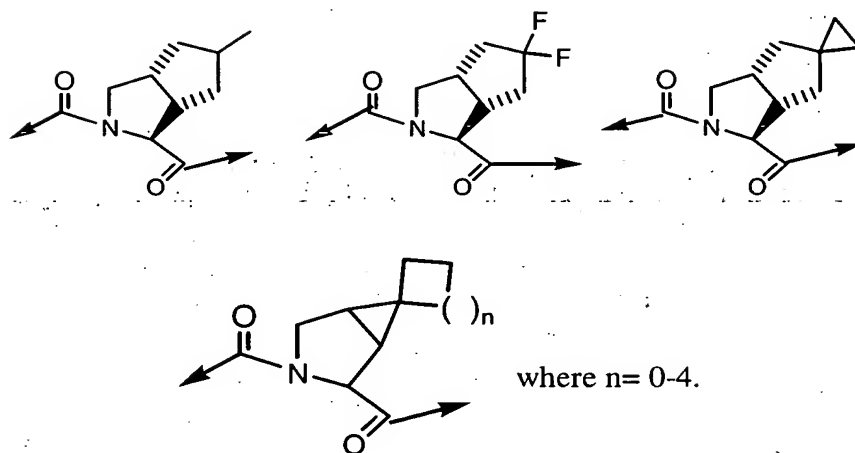
26. (currently amended) The compound of claim 25, wherein structure c is selected from the following structures:





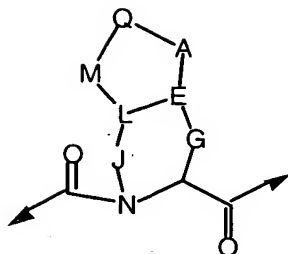


and

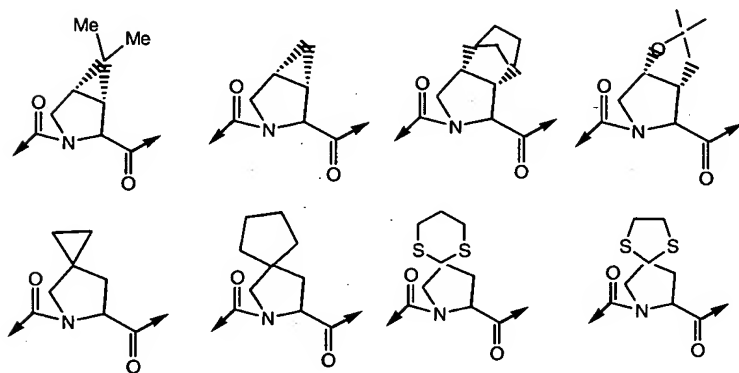
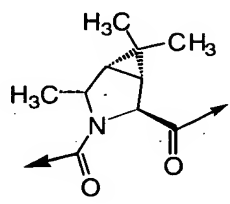
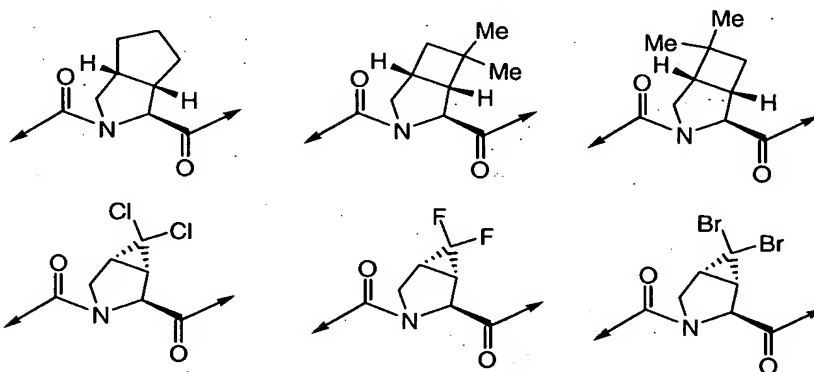


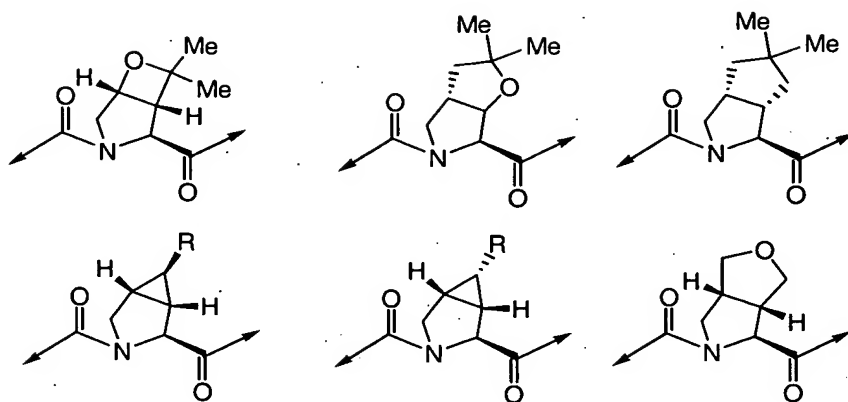
27. (currently amended) The compound of claim 14, wherein:

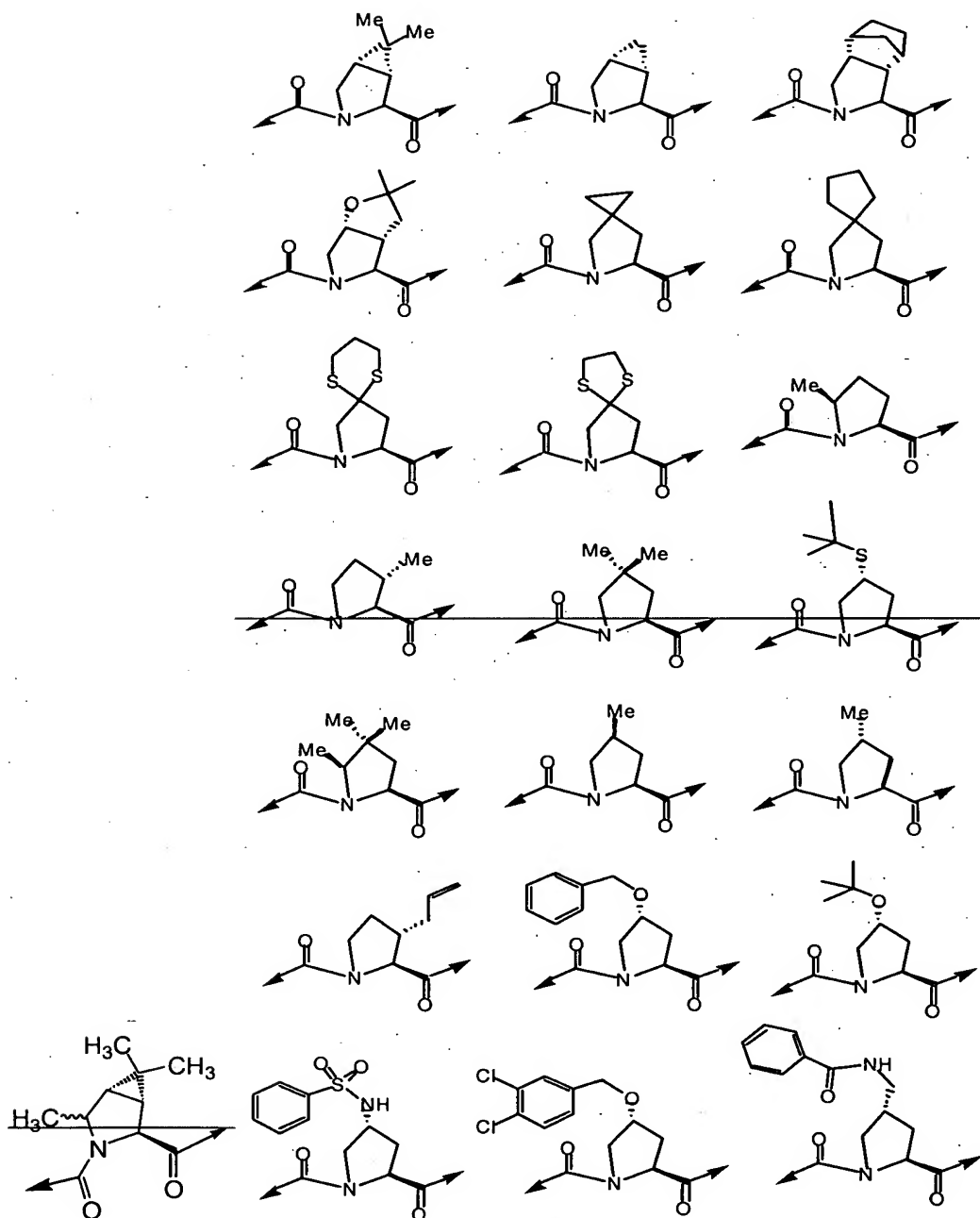




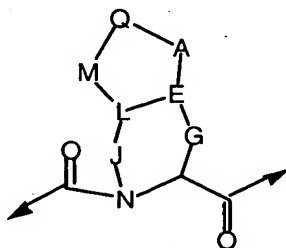
is selected from the following structures:



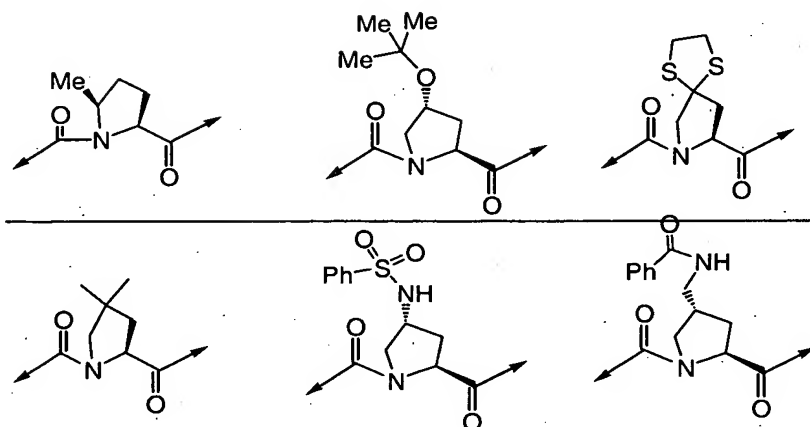
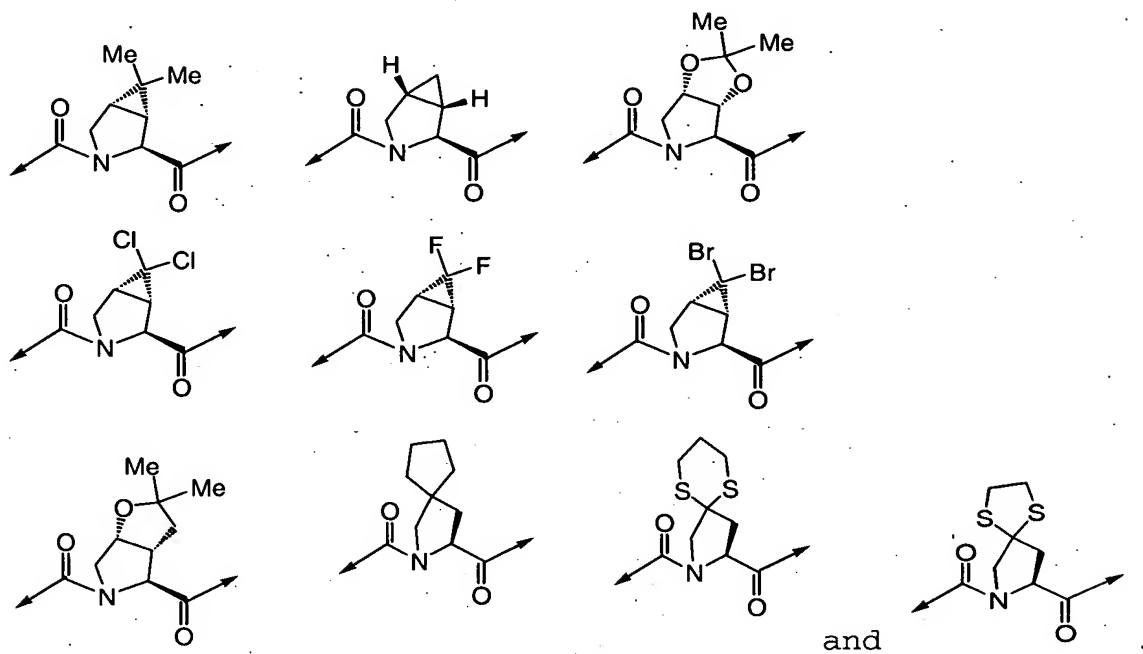




28. (currently amended) The compound of claim 27, wherein:

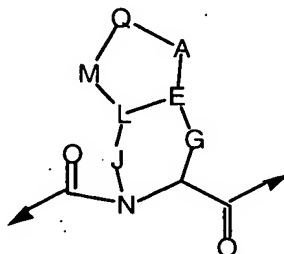


is selected from the following structures:

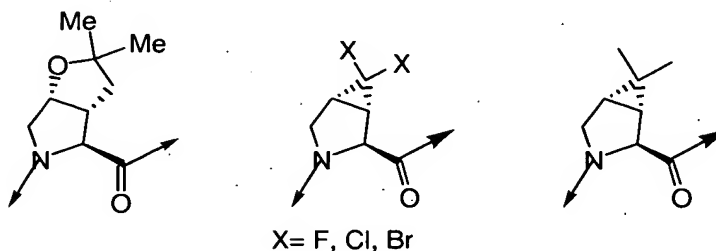


29. (previously presented)

The compound of claim 27, wherein:



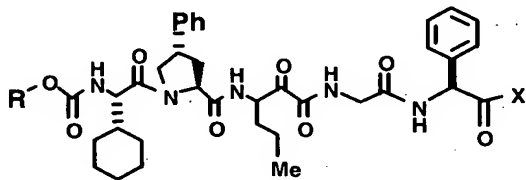
is selected from the following structures:



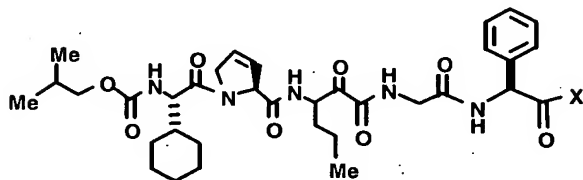
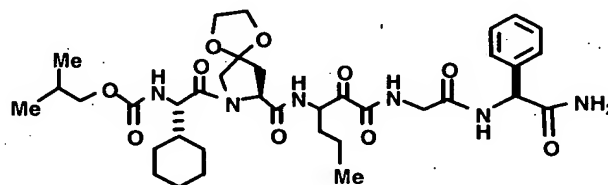
30. (original) A pharmaceutical composition comprising as an active ingredient a compound of claim 1.
31. (previously presented) The pharmaceutical composition of claim 30 suitable for use in treating disorders associated with hepatitis C virus.
32. (original) The pharmaceutical composition of claim 30 additionally comprising a pharmaceutically acceptable carrier.
33. (original) The pharmaceutical composition of claim 32, additionally containing an antiviral agent.
34. (previously presented) The pharmaceutical composition of claim 33, further containing an interferon.
35. (original) The pharmaceutical composition of claim 34, wherein said antiviral agent is ribavirin and said interferon is  $\alpha$ -interferon or pegylated interferon.
36. (previously presented) A method of treating disorders associated with the hepatitis C virus, said method comprising administering to a patient in need of such treatment a pharmaceutical composition which comprises therapeutically effective amounts of a compound of claim 1.
37. (original) The method of claim 36, wherein said administration is oral or subcutaneous.
38. (previously presented) A compound of claim 1 suitable for use in the manufacture of a medicament to treat disorders associated with the hepatitis C virus.

39. (previously presented) A method of preparing a pharmaceutical composition for treating the disorders associated with the hepatitis C virus, said method comprising bringing into intimate contact a compound of claim 1 and a pharmaceutically acceptable carrier.

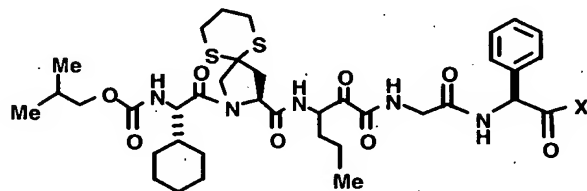
40. (previously presented) A compound exhibiting hepatitis C virus protease inhibitory activity, including enantiomers, stereoisomers, rotamers, tautomers, racemates and prodrug of said compound, and pharmaceutically acceptable salts or solvates of said compound, or of said prodrug, said compound being selected from the compounds of structures listed below:



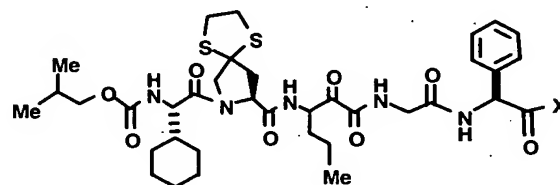
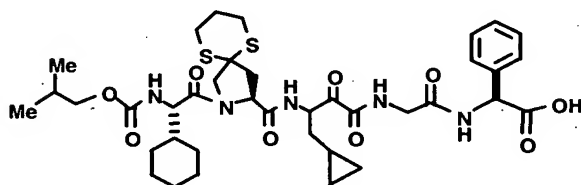
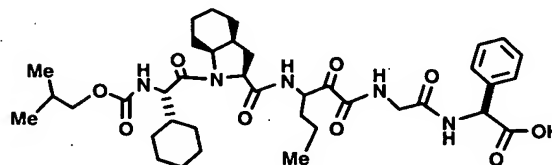
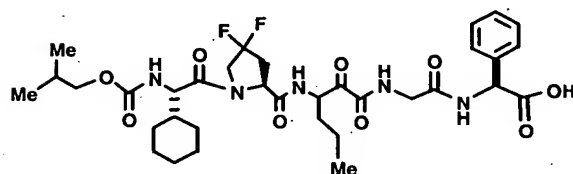
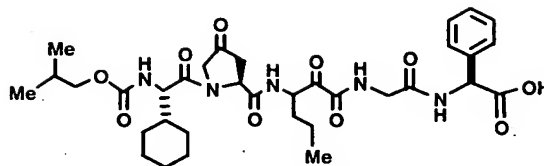
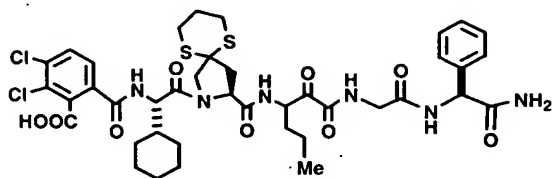
(R = t-butyl, X = NH<sub>2</sub>)  
 (R = Isobutyl, X = NH<sub>2</sub>) (R = t-butyl, X = OH)  
 (R = Trichloroethyl, X = OH)



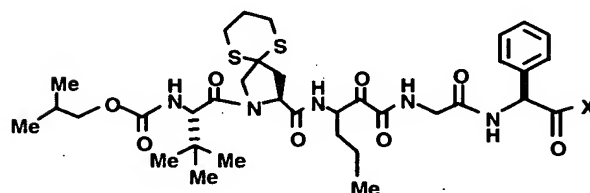
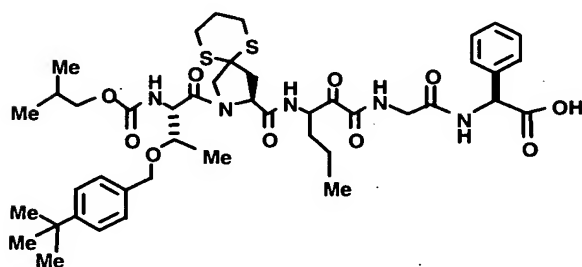
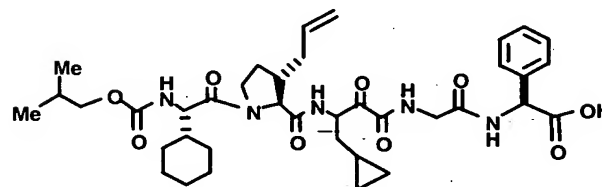
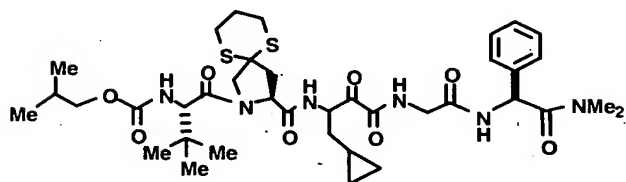
(X = O<sup>t</sup>Bu)  
 (X = OH)



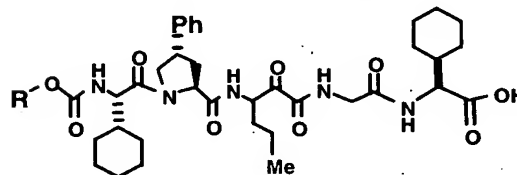
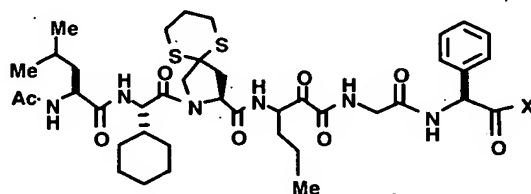
(X = OH)  
 (X = O<sup>t</sup>Bu) (X = NH<sub>2</sub>)  
 (X = NHMe) (X = NMe<sub>2</sub>)



(X = NH<sub>2</sub>) (X = NHMe)  
(X = NMe<sub>2</sub>) (X = OH)

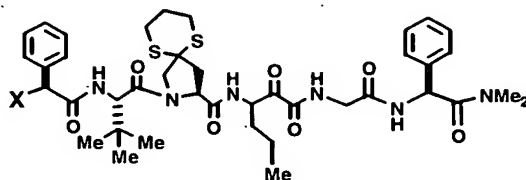
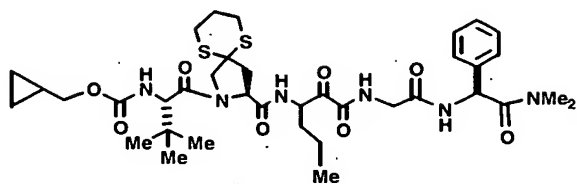


(X = O<sup>t</sup>Bu) (X = NH<sub>2</sub>)  
(X = OH) (X = NMe<sub>2</sub>)



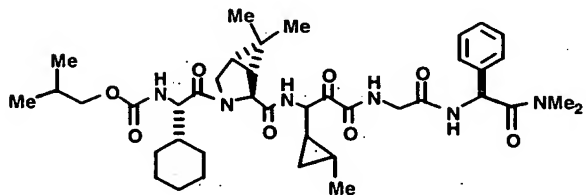
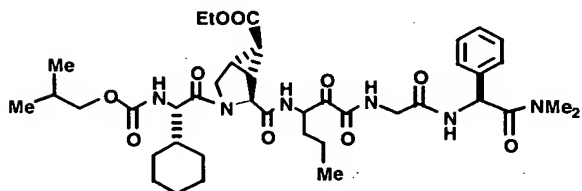
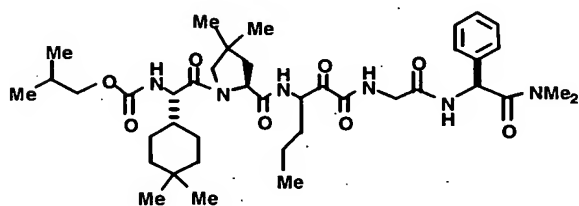
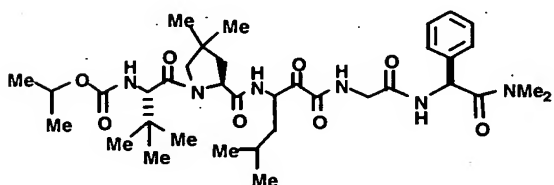
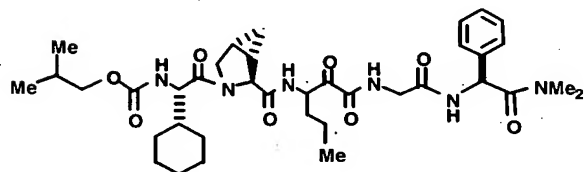
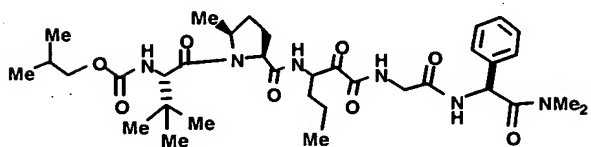
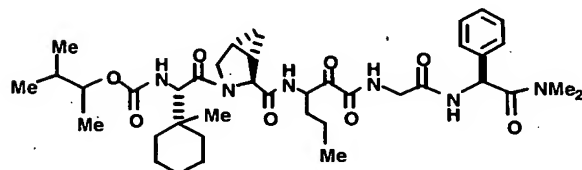
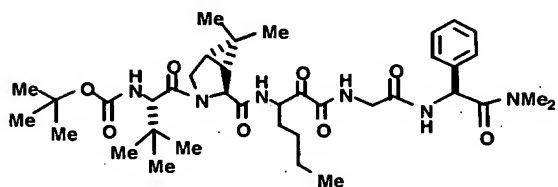
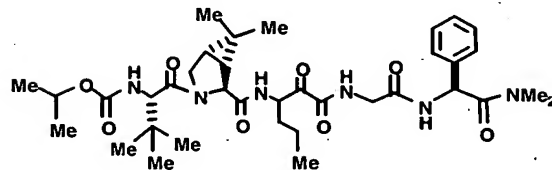
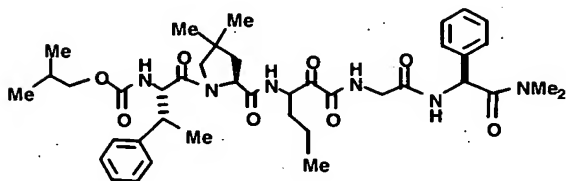
(X = O<sup>t</sup>Bu) (X = NH<sub>2</sub>) (X = NMe<sub>2</sub>)  
(X = OH) (X = NMeOMe)

(R = t-butyl)  
(R = Isobutyl)

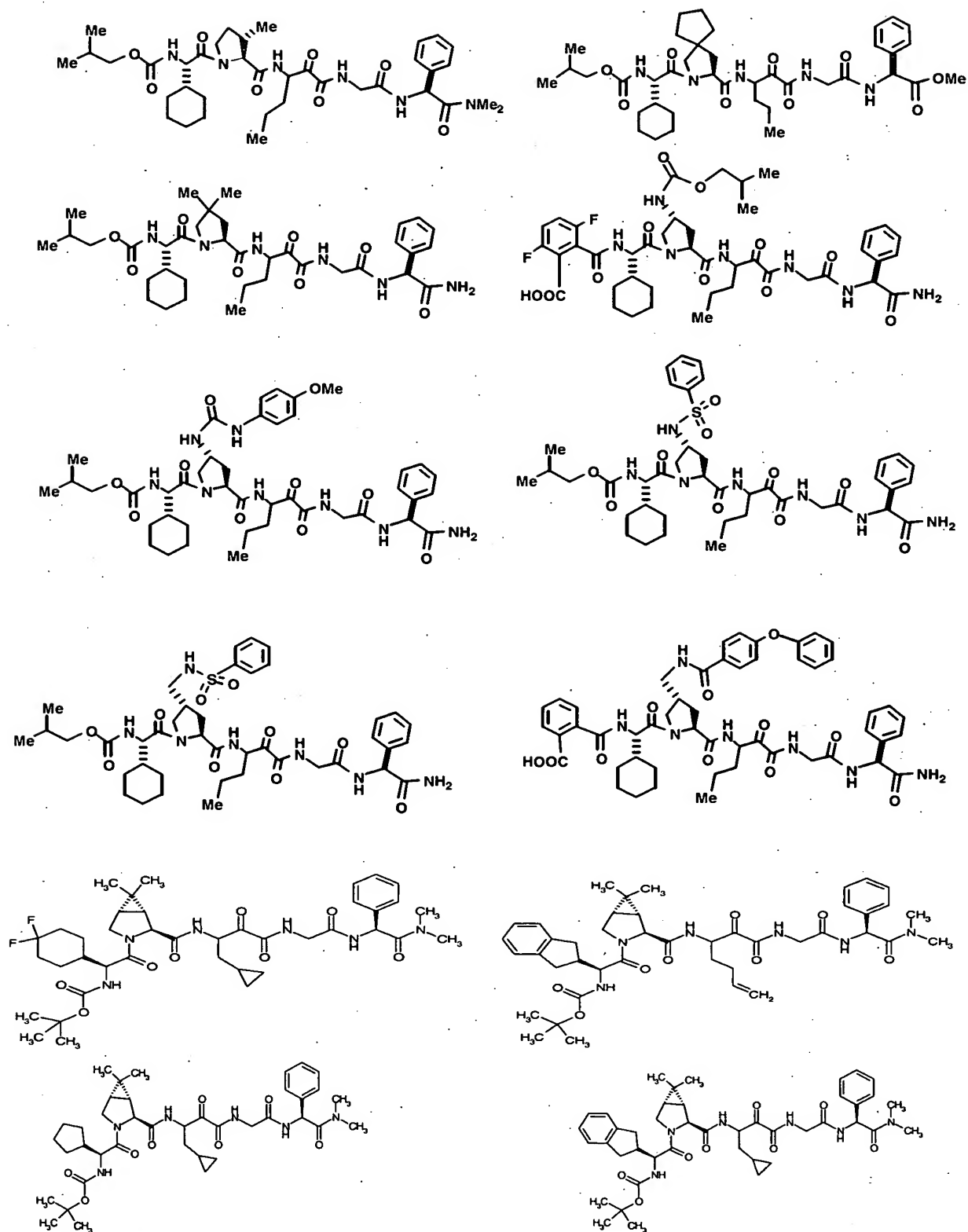


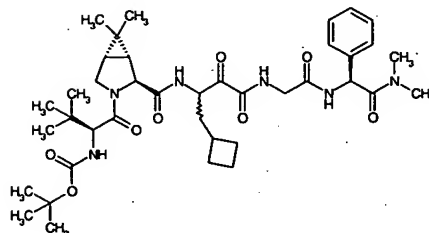
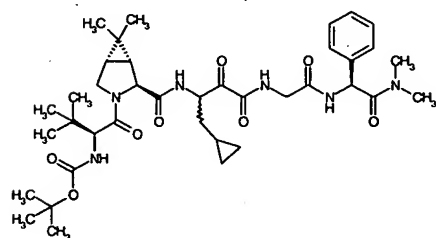
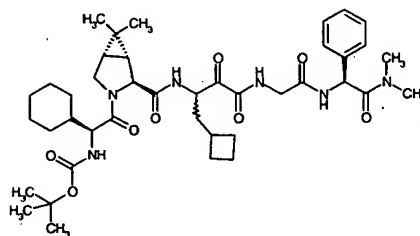
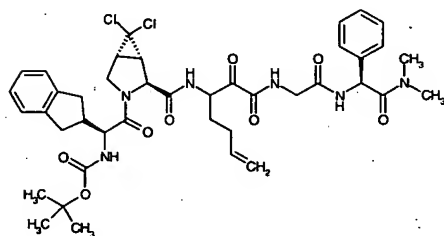
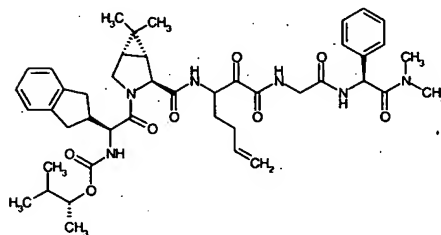
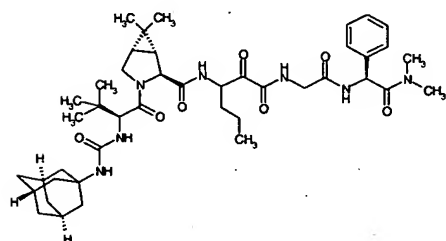
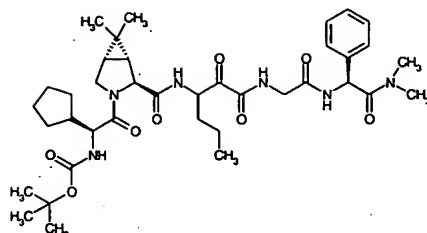
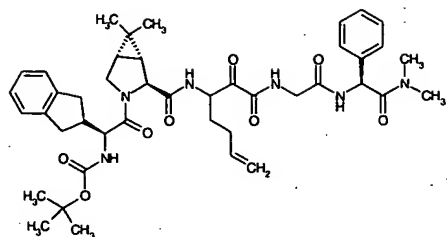
(X = Me, Y = CH<sub>2</sub>Me)

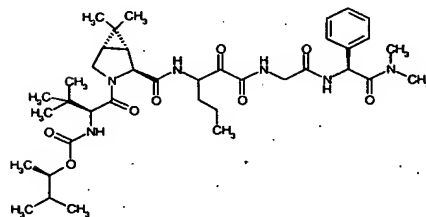
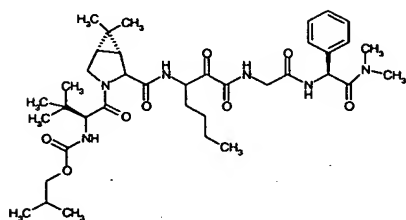
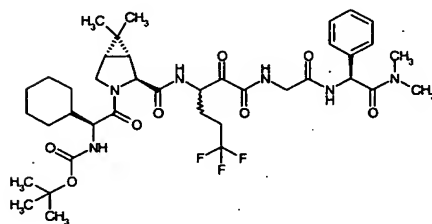
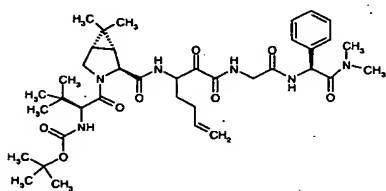
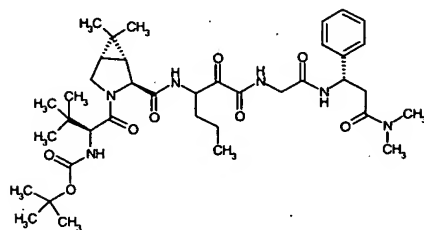
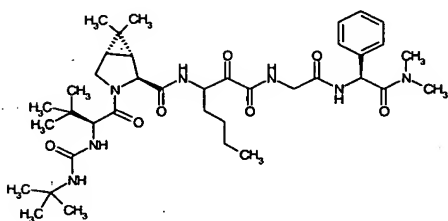
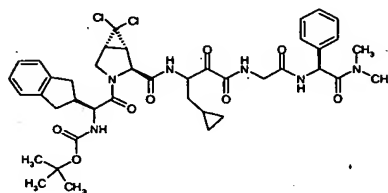
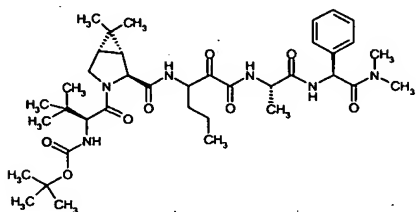
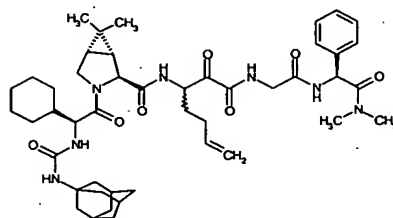
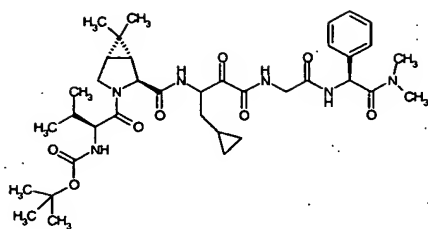
(X = OAc, Y = Me)

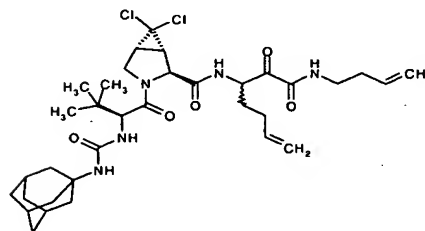
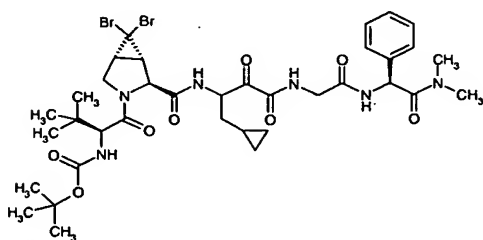
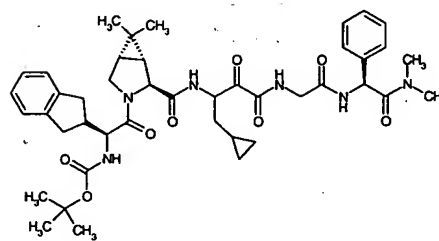
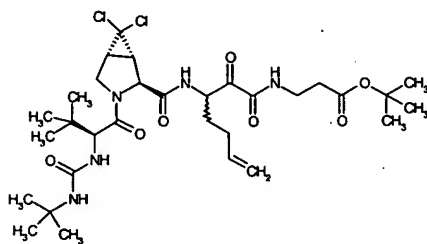
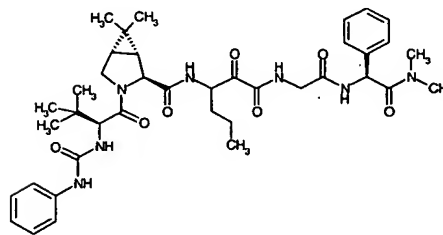
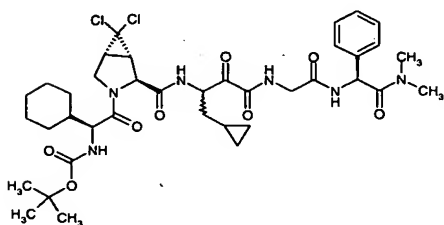
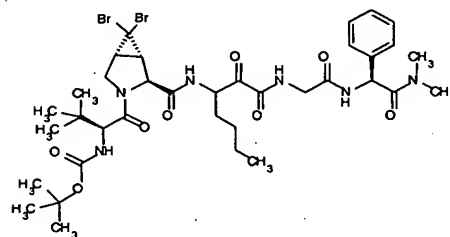
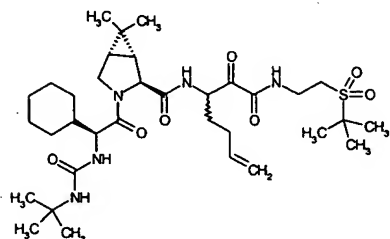
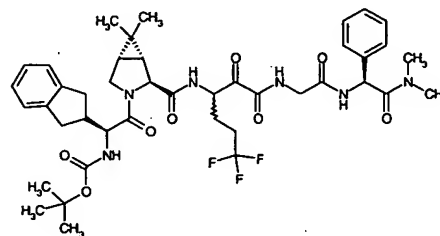
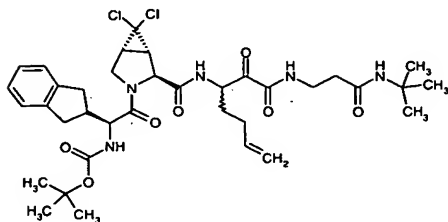
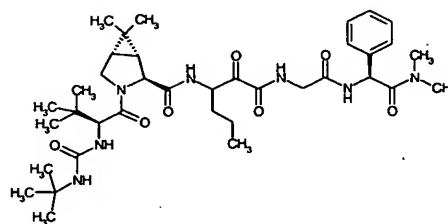
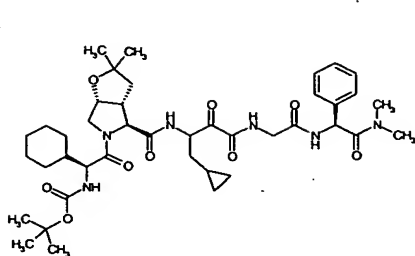


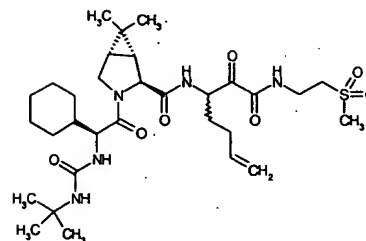
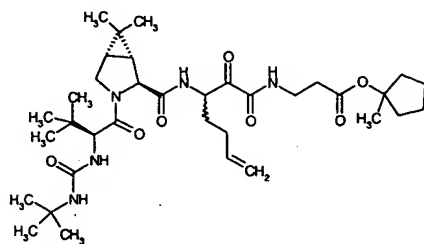
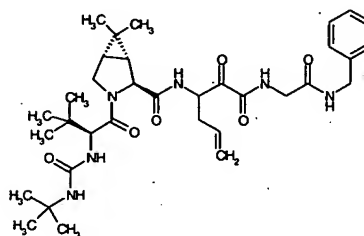
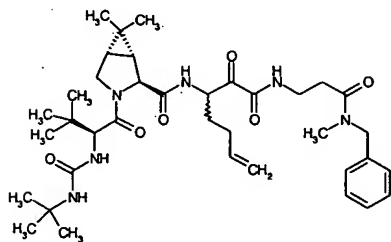
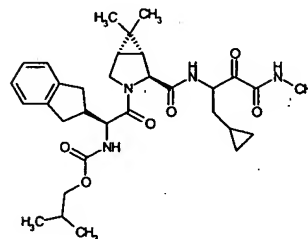
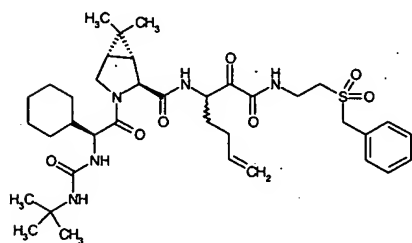
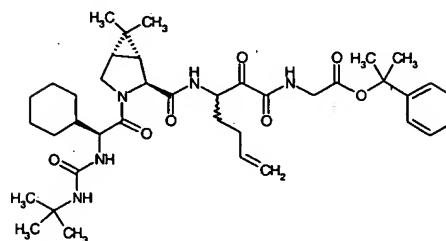
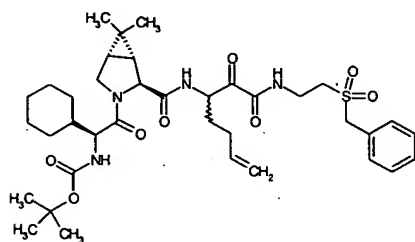
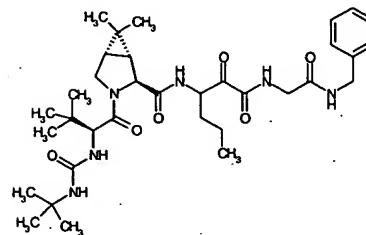
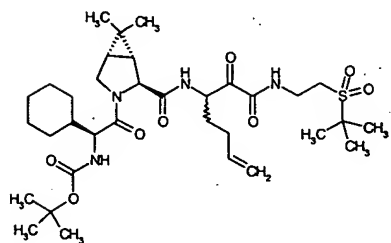
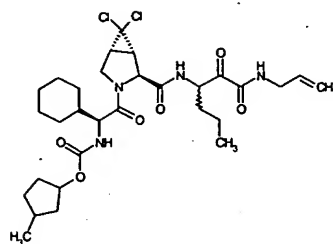
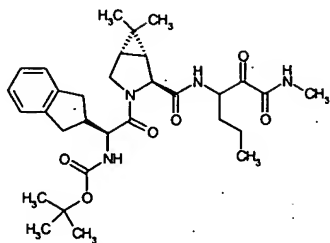


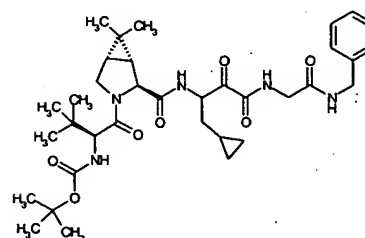
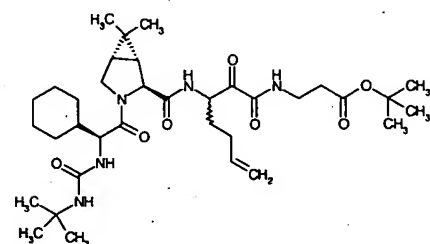
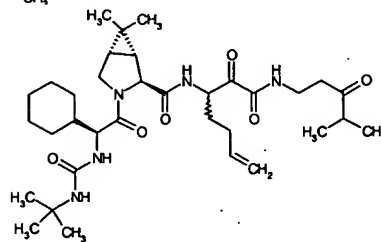
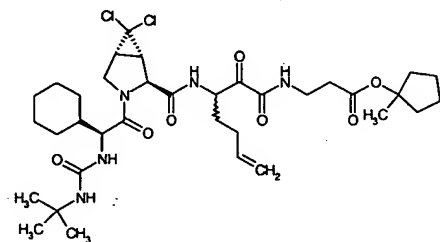
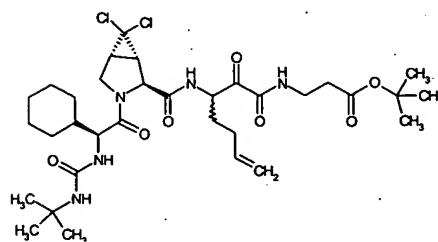
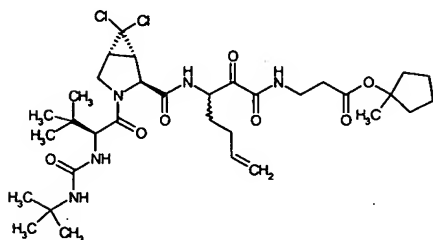
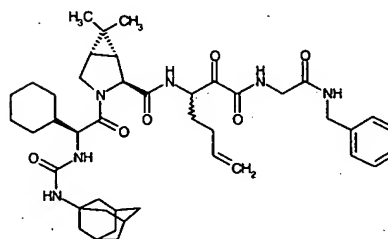
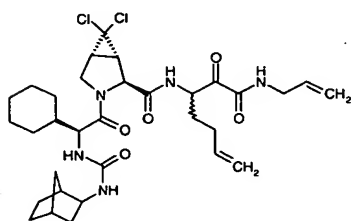
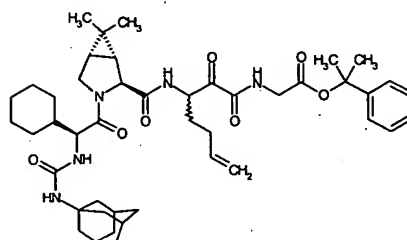
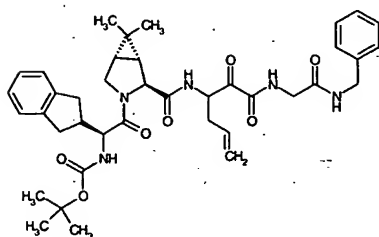
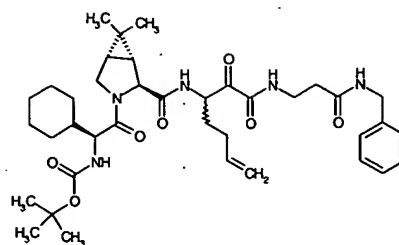
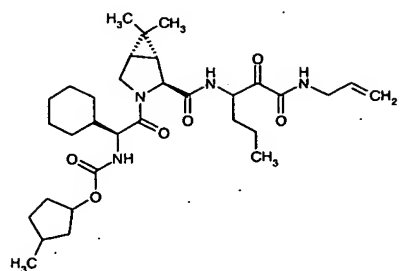


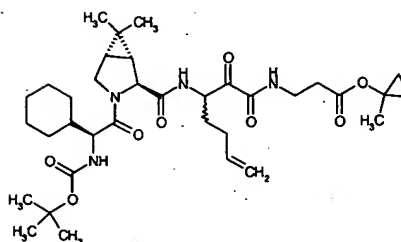
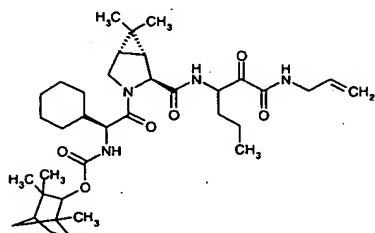
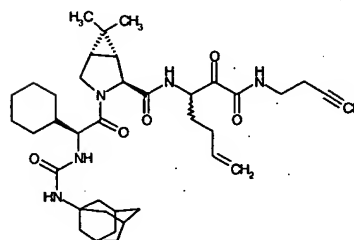
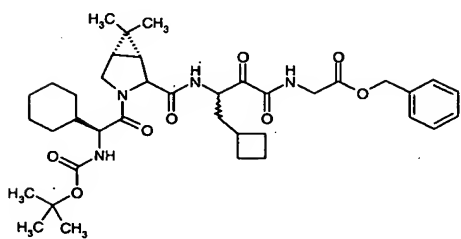
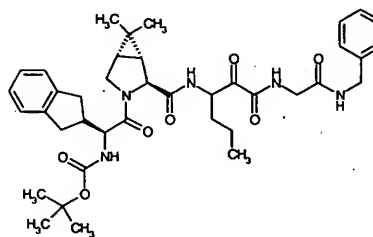
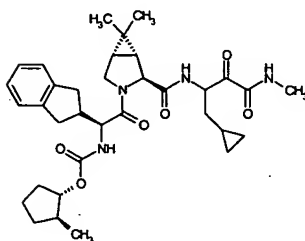
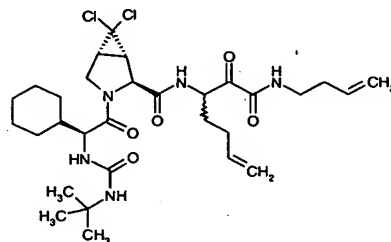
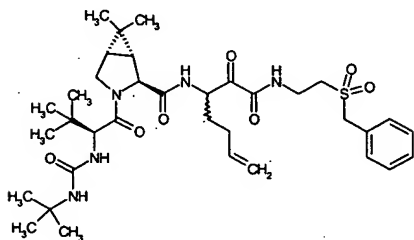
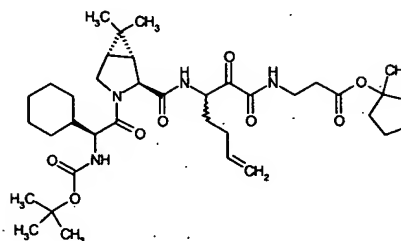
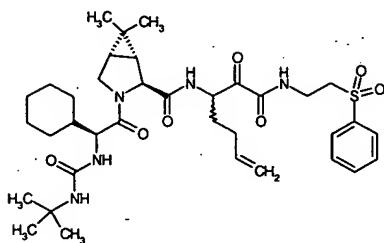
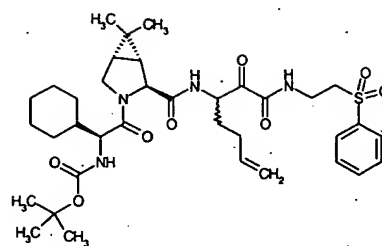
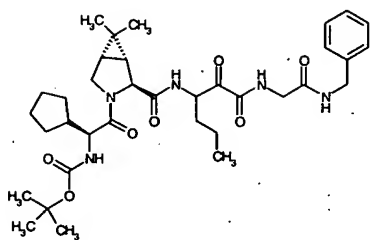


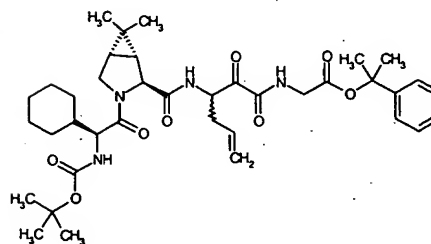
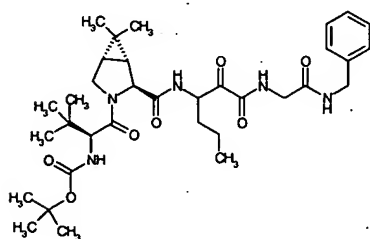
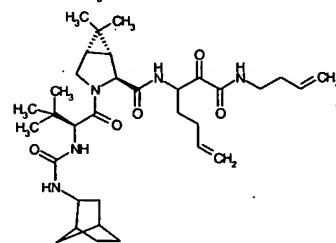
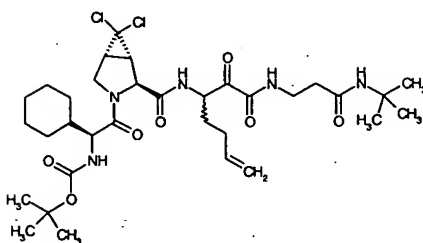
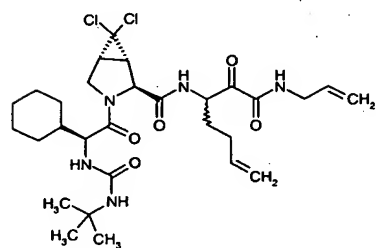
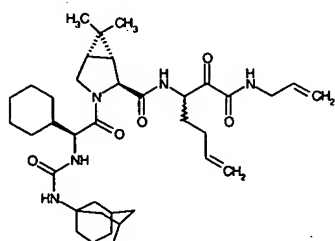
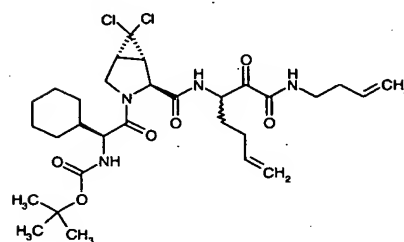
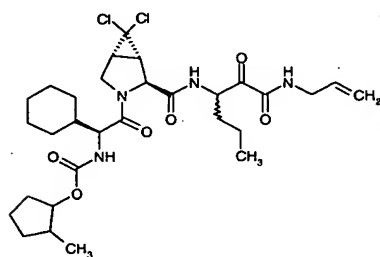
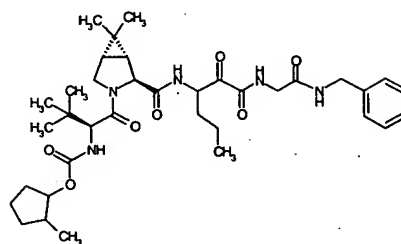
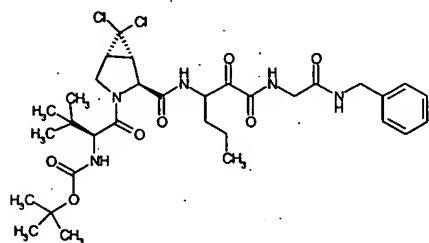
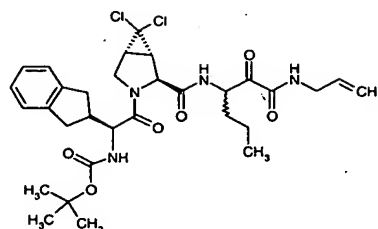
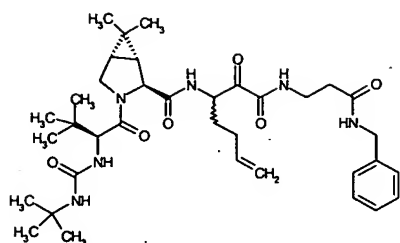




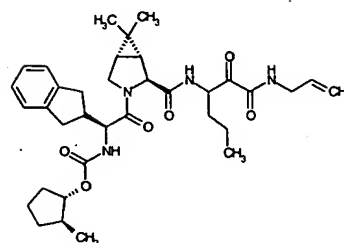
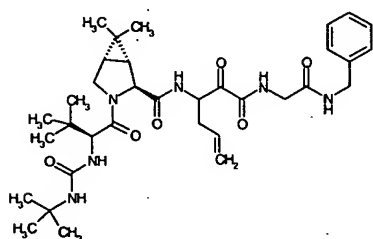
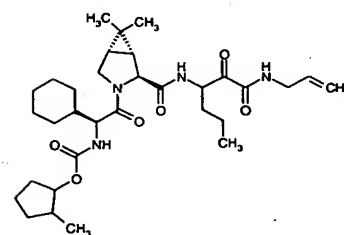
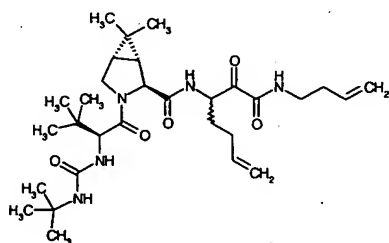
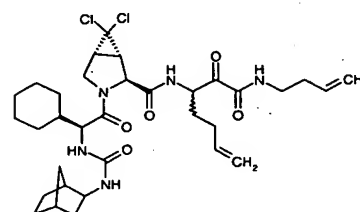
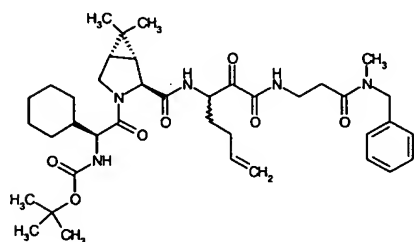
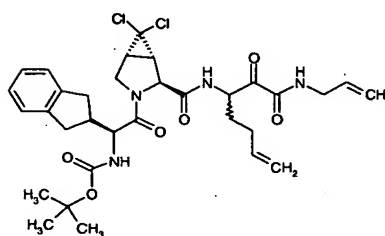
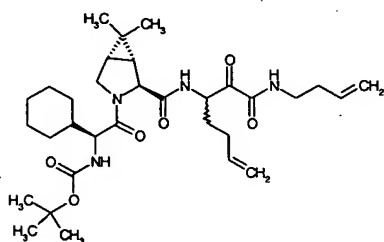
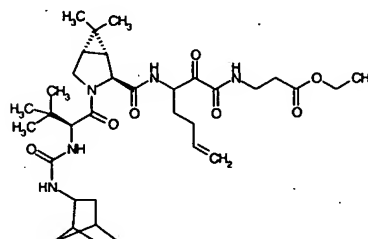
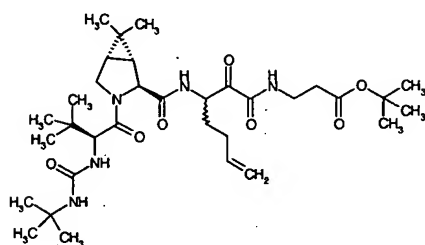
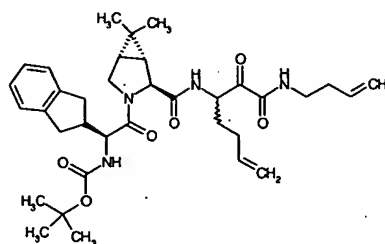
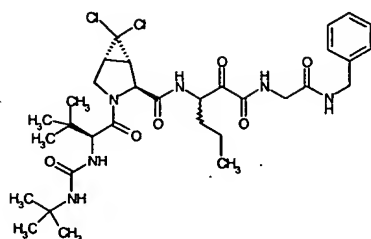


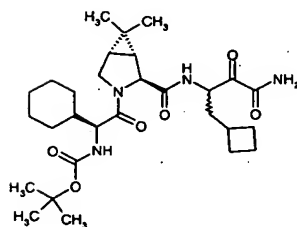
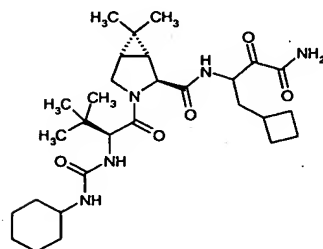
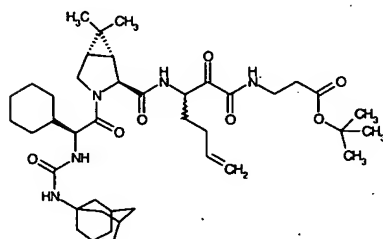
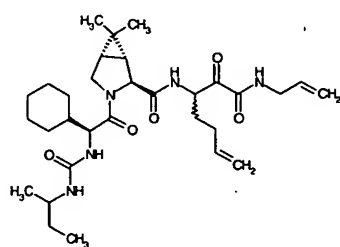
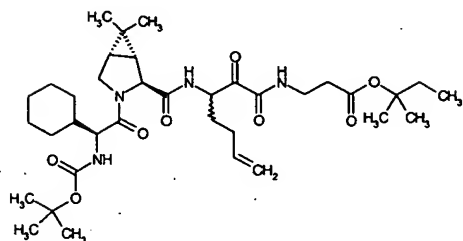
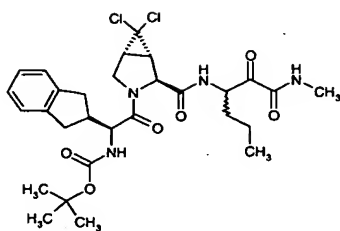


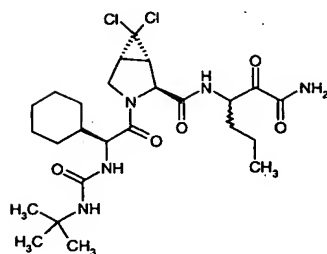
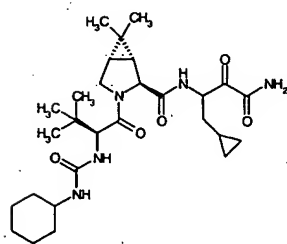
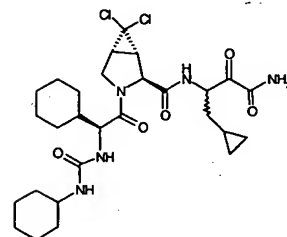
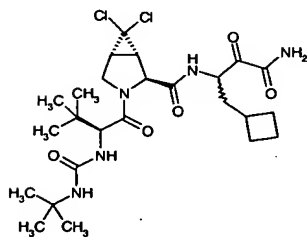
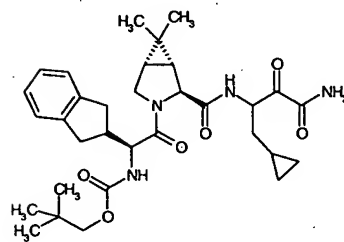
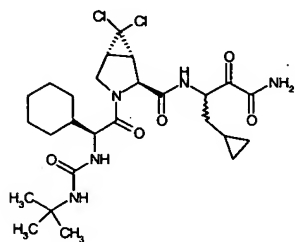
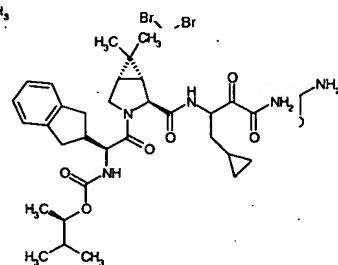
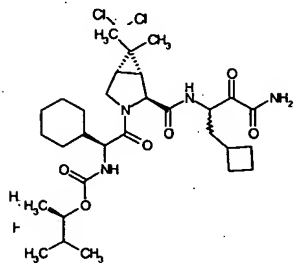
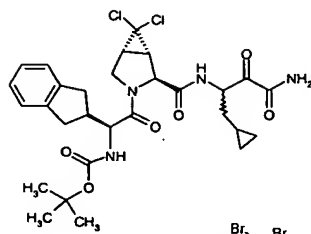
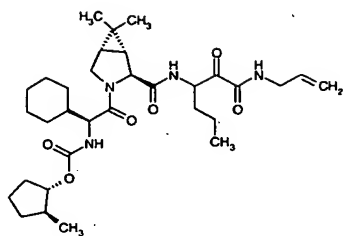


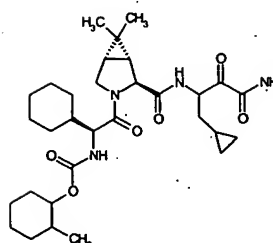
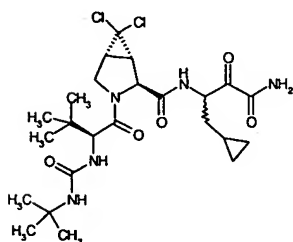
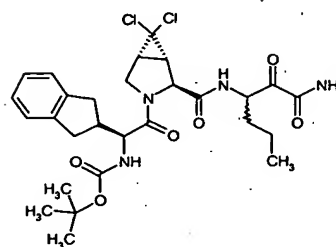
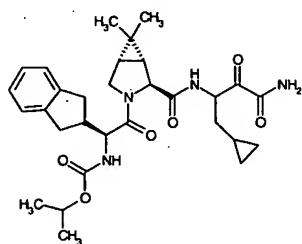
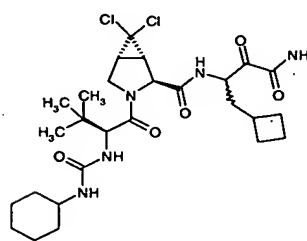
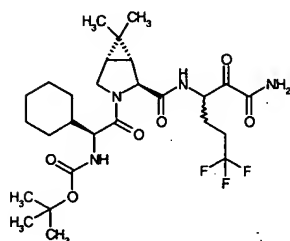
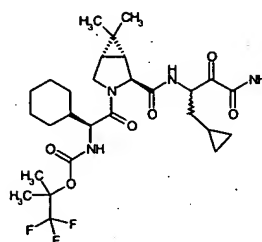
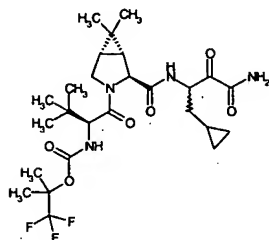
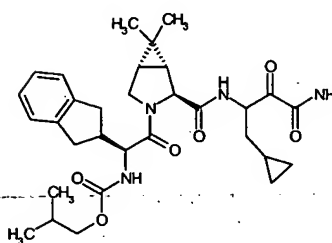
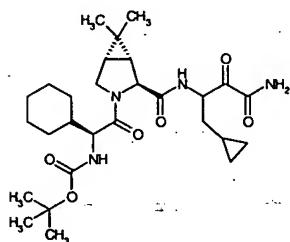
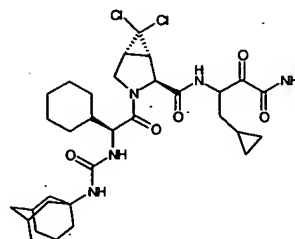
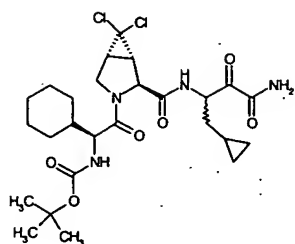


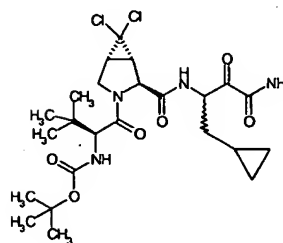
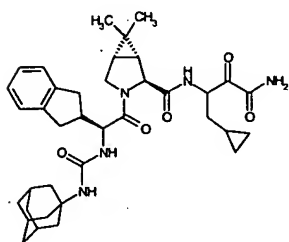
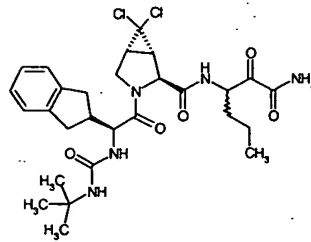
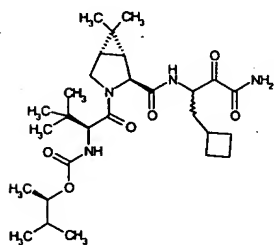
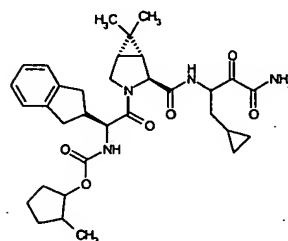
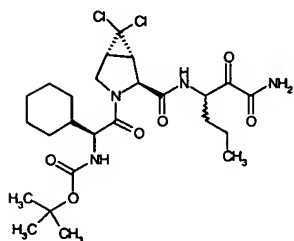
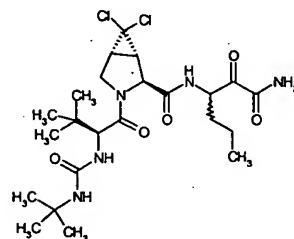
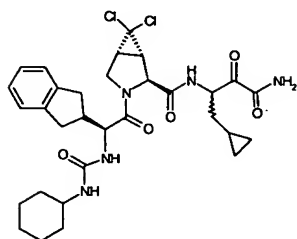
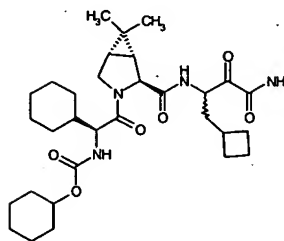
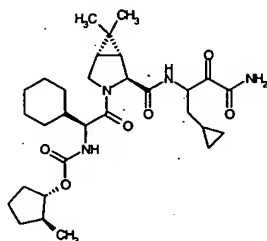
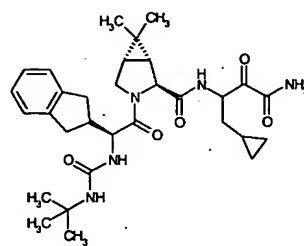
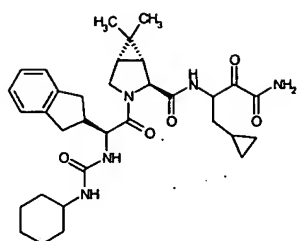


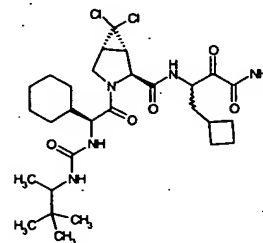
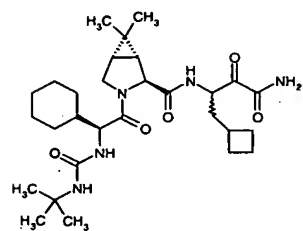
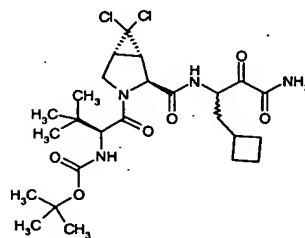
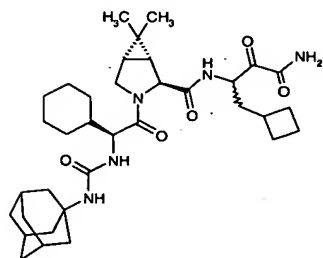
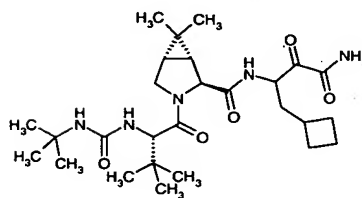
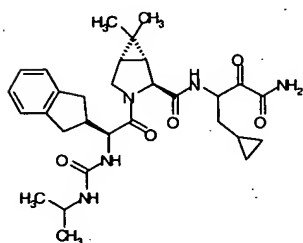
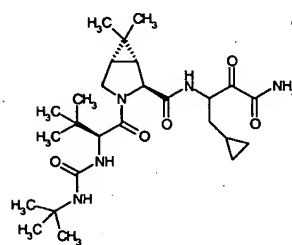
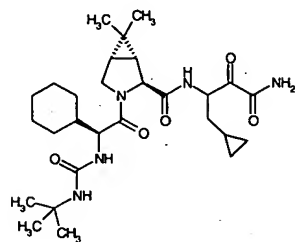
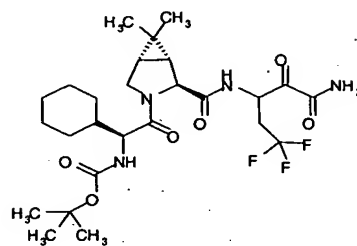
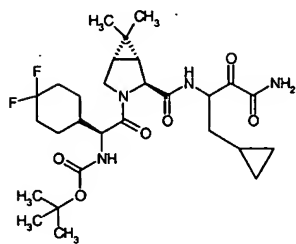
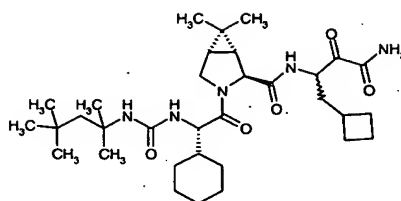
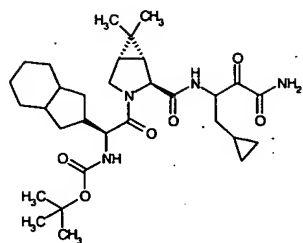


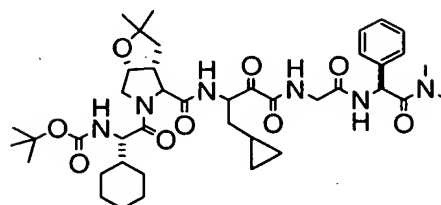
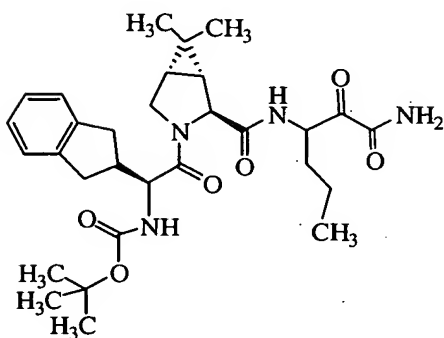
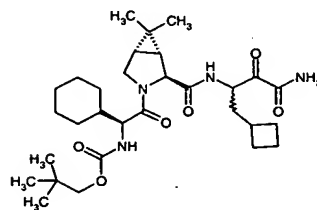
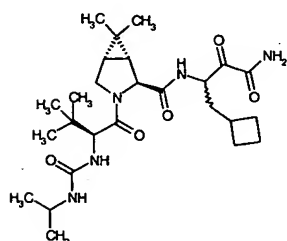
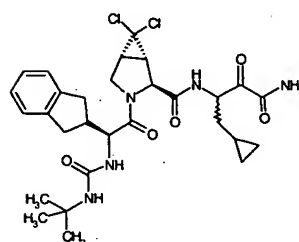
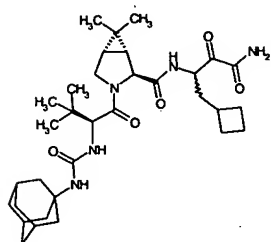
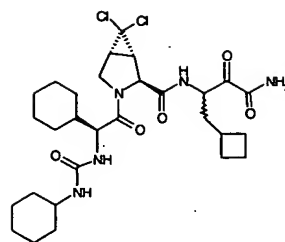
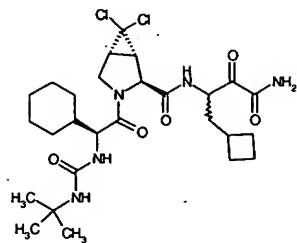


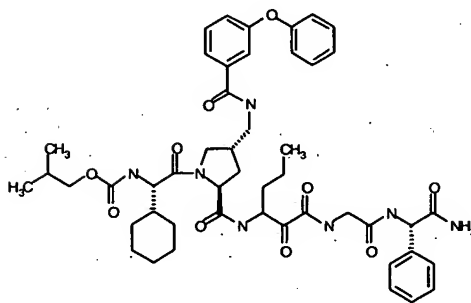
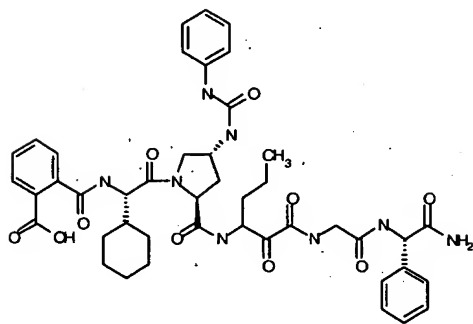
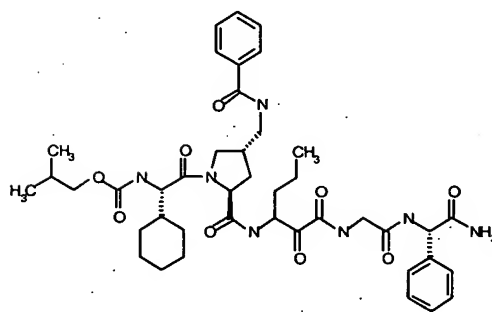
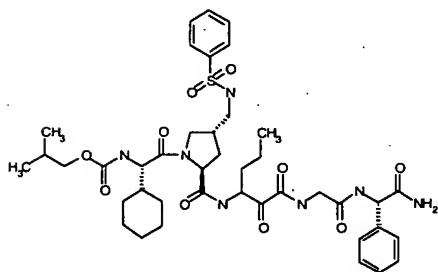
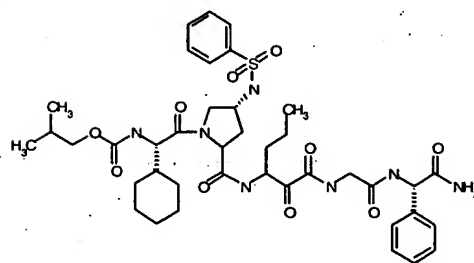
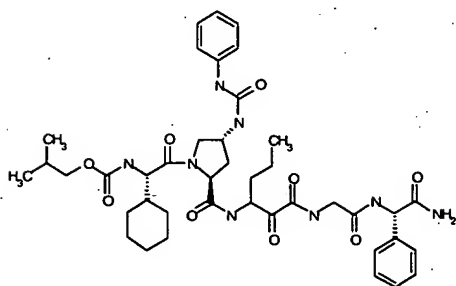
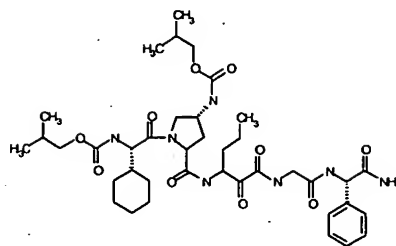
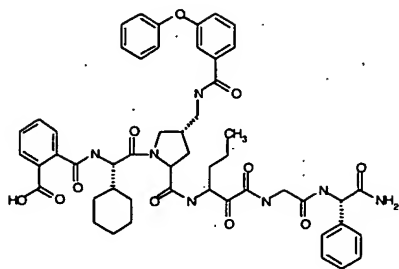




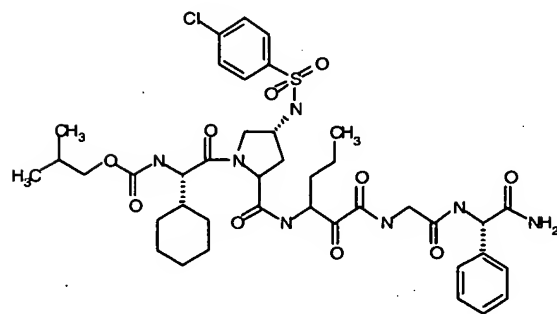
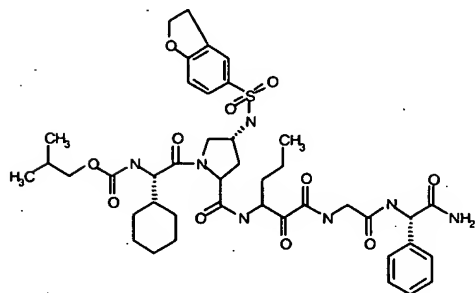
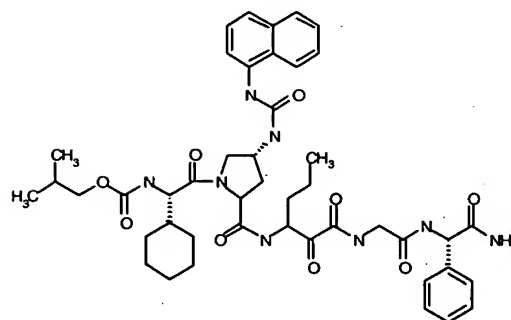
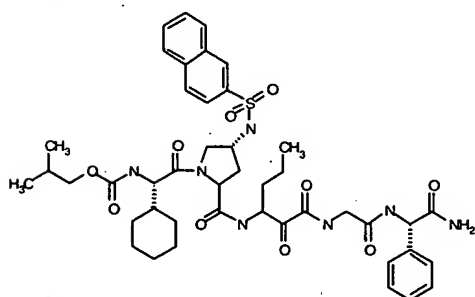
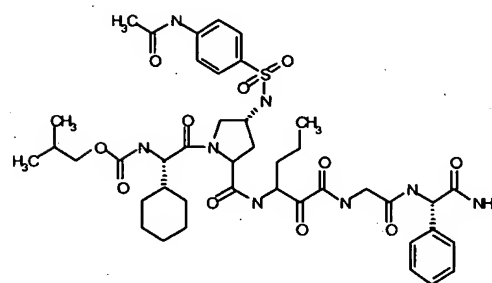
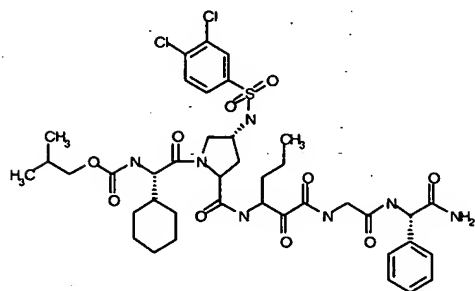
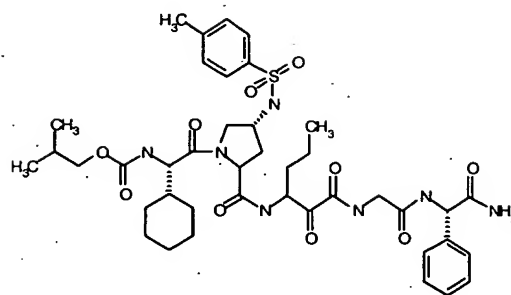
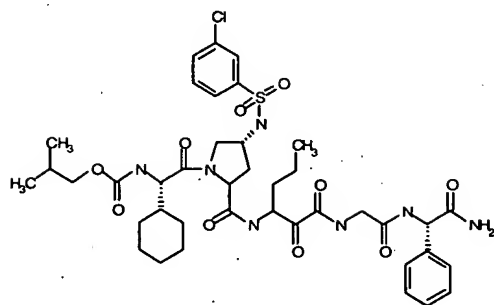


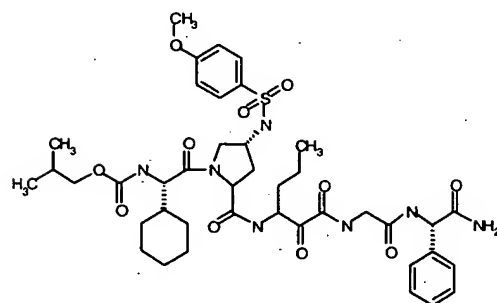
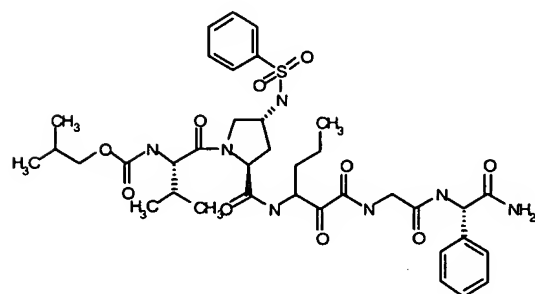
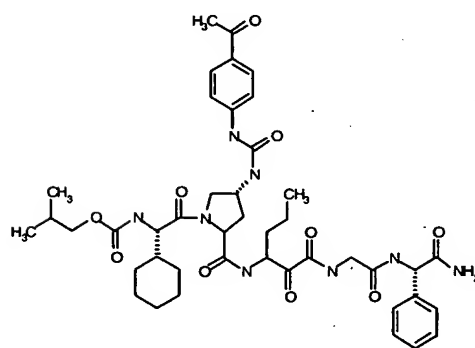
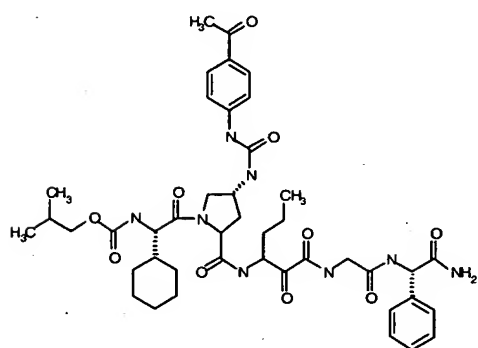
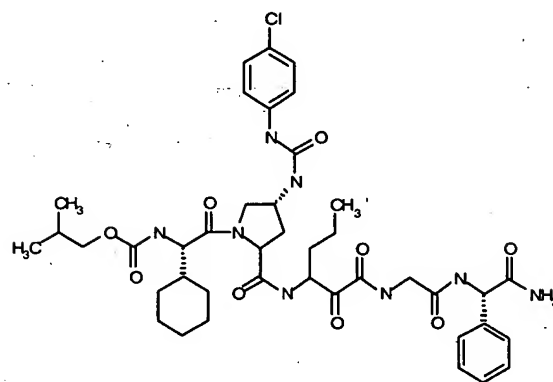
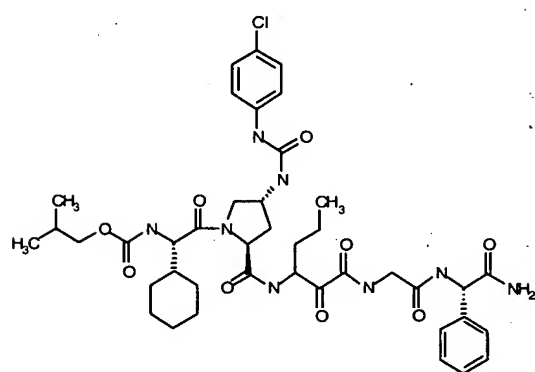
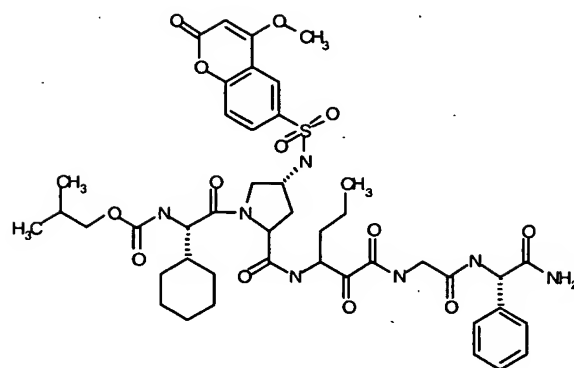
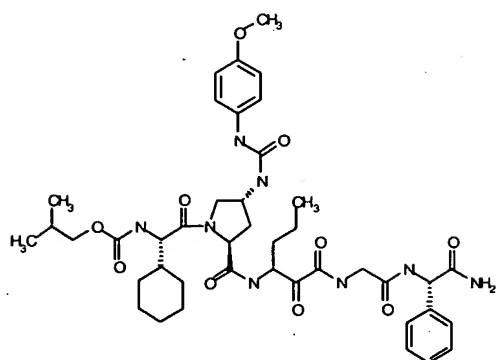


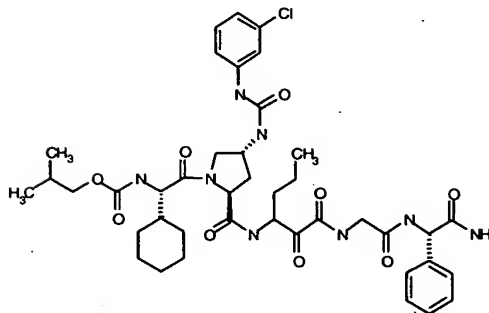
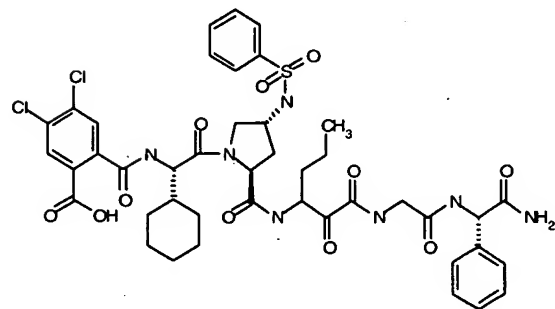
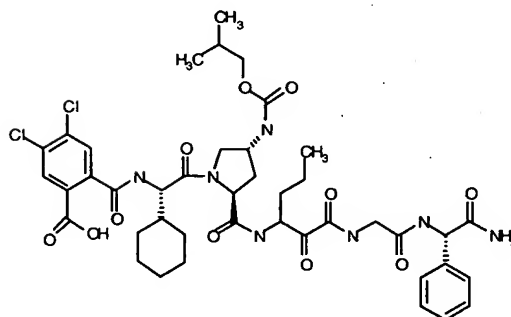
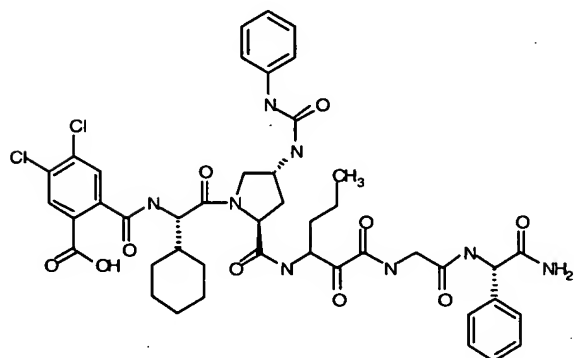
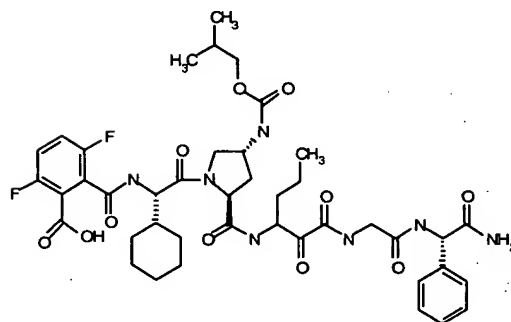
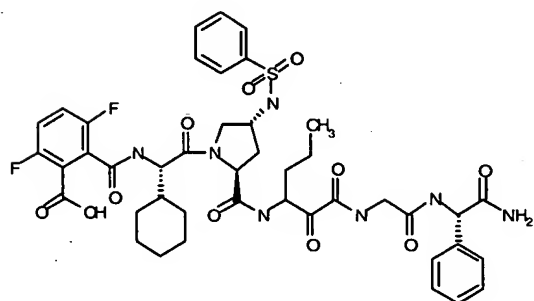
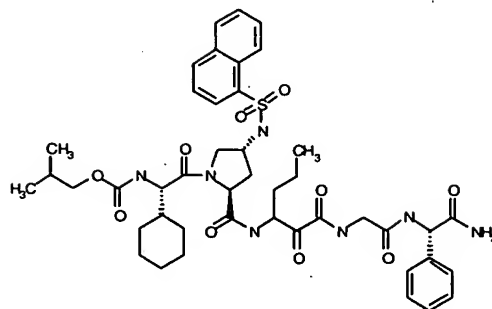
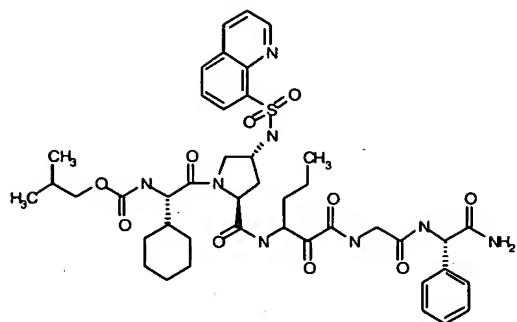


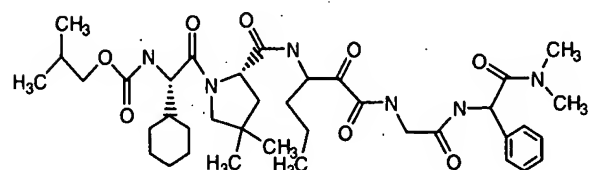
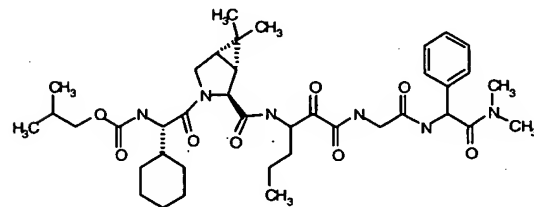
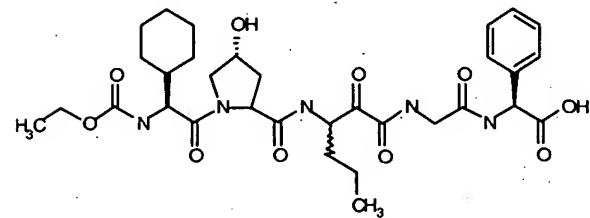
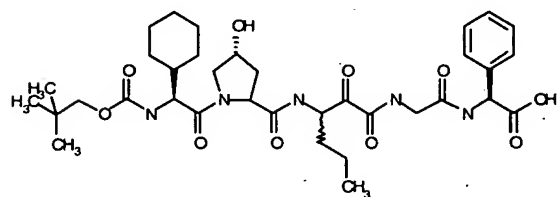
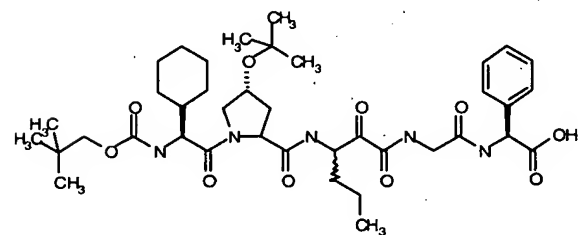
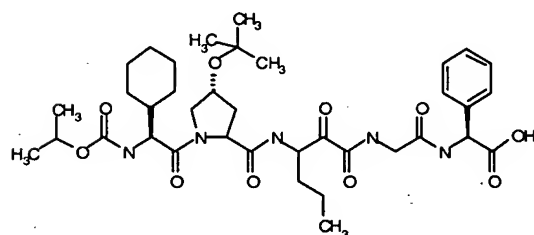
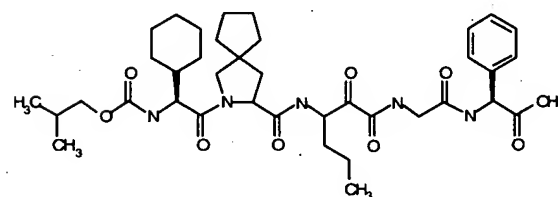
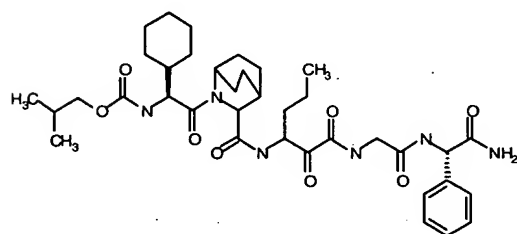
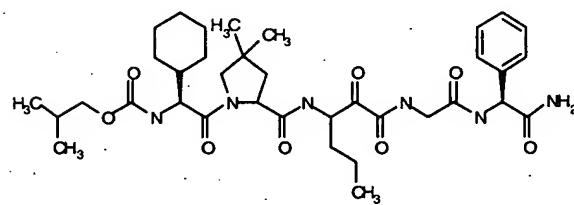
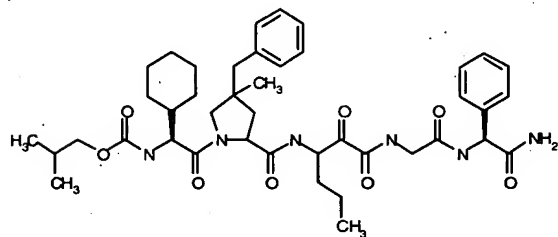
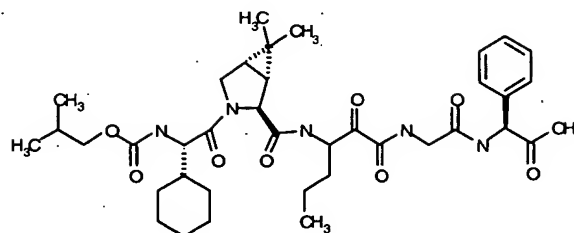
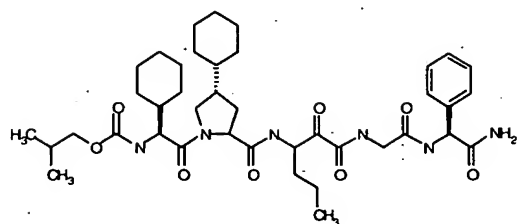


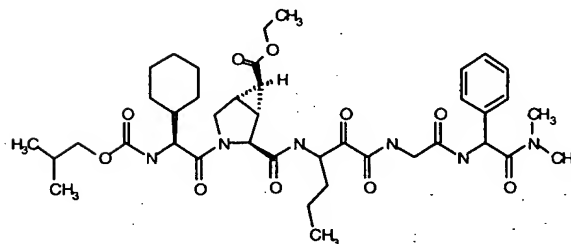
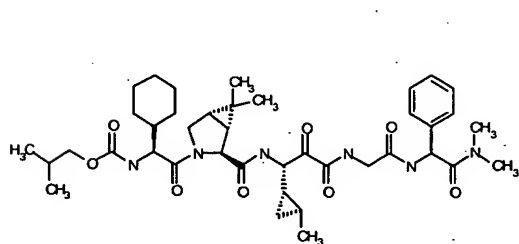
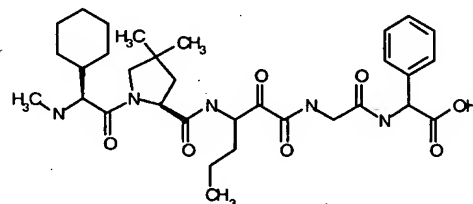
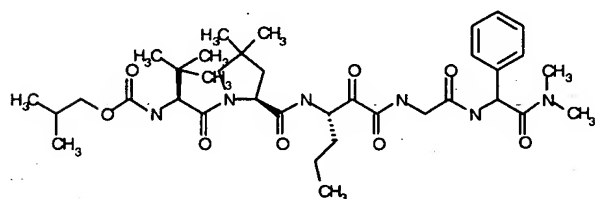
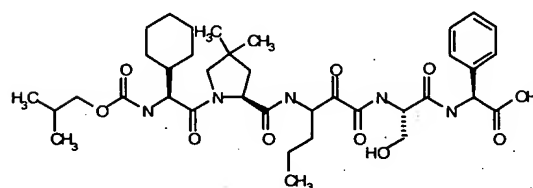
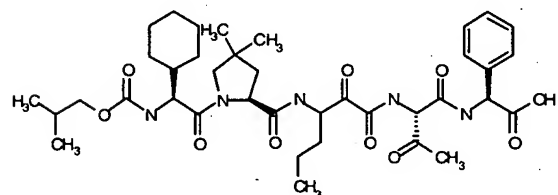
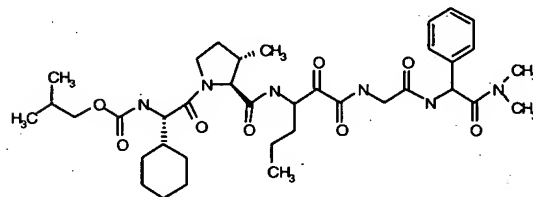
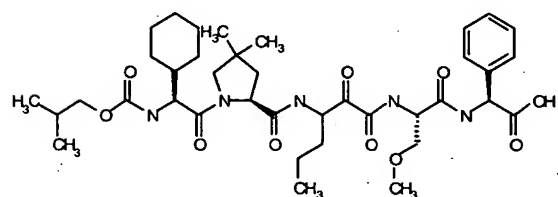
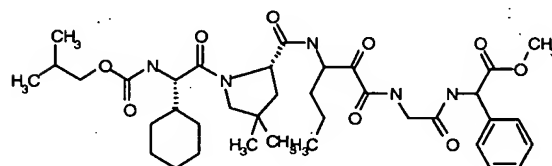
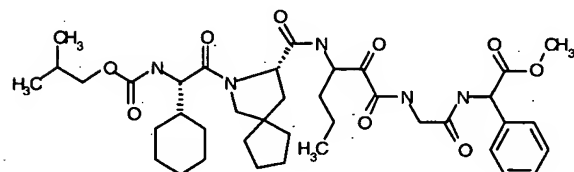
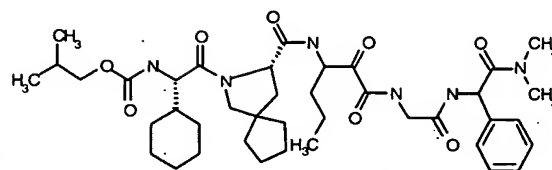
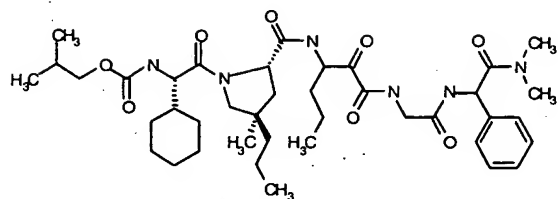


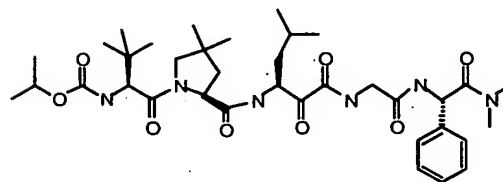
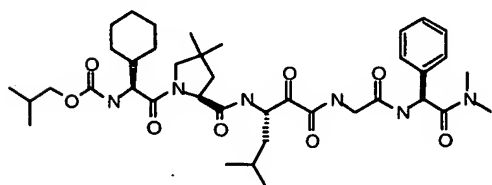
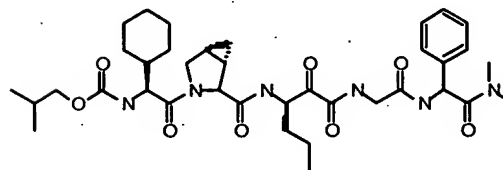
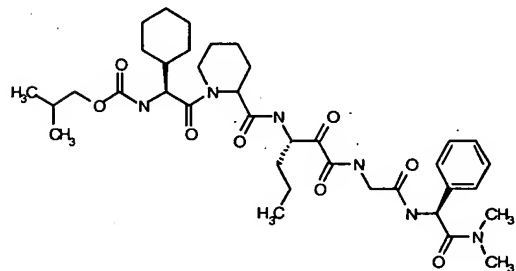
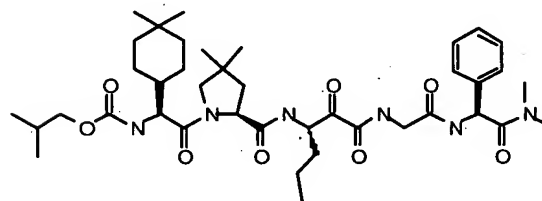
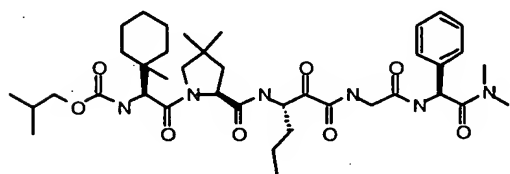
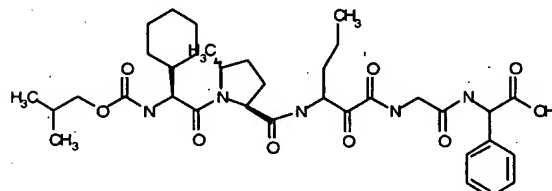
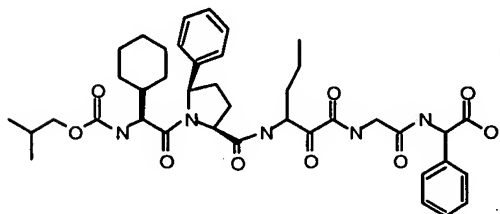
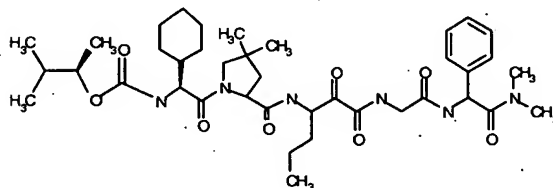
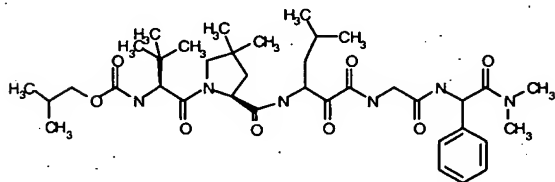
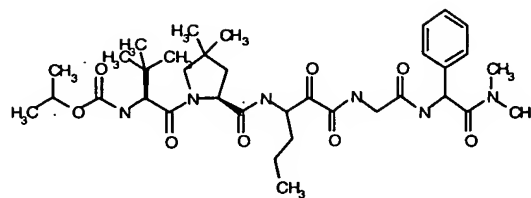
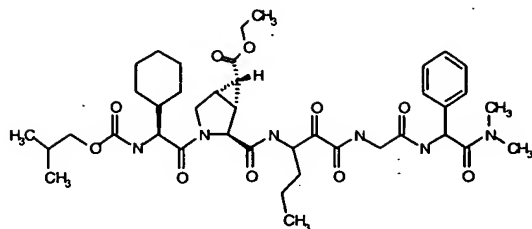


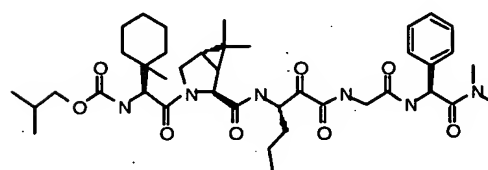
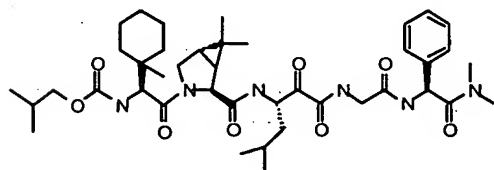
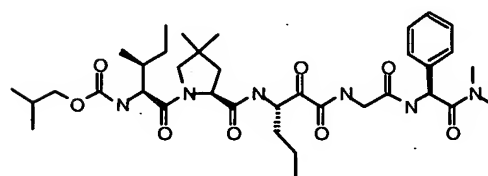
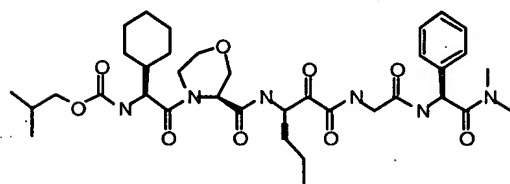
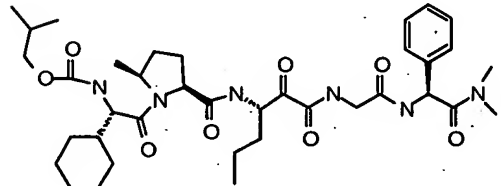
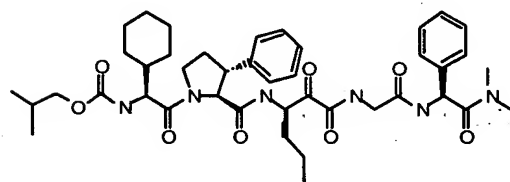
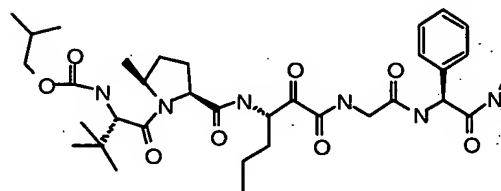
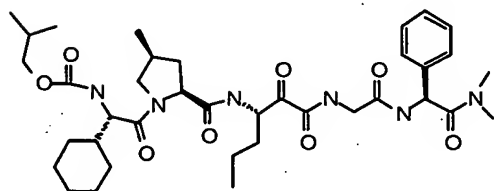
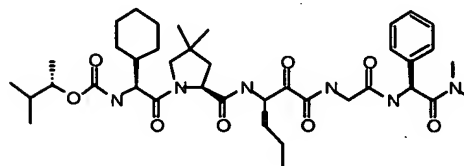
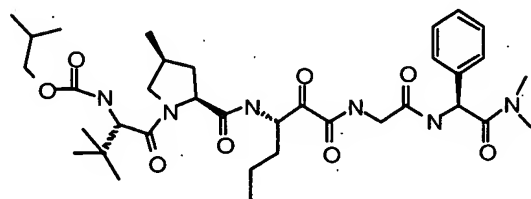
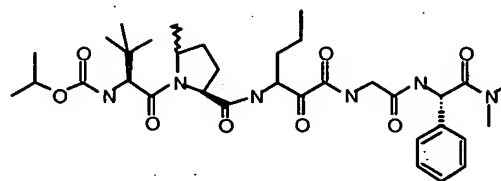
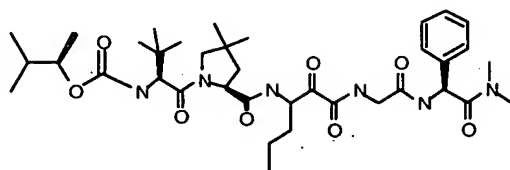


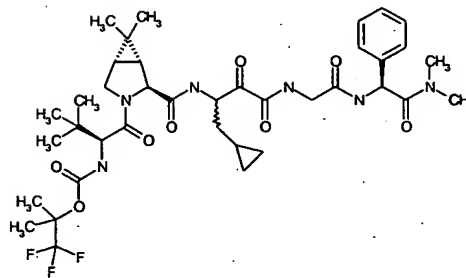
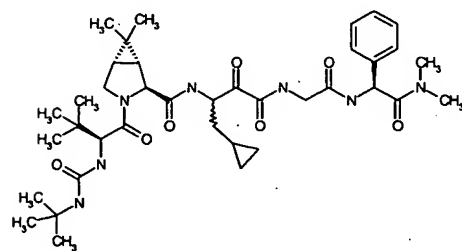
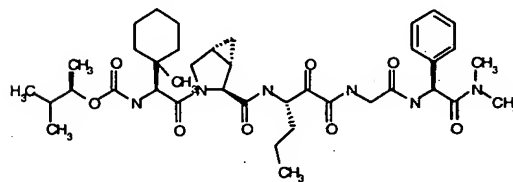
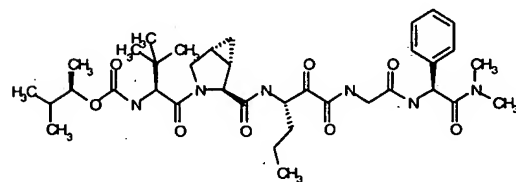
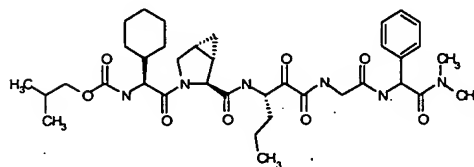
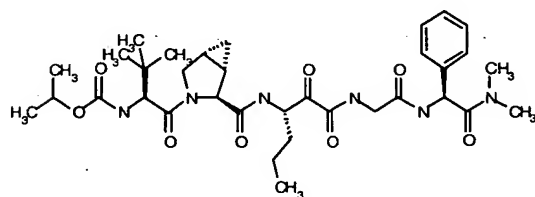
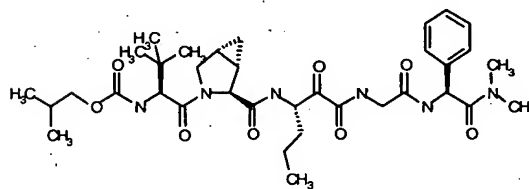
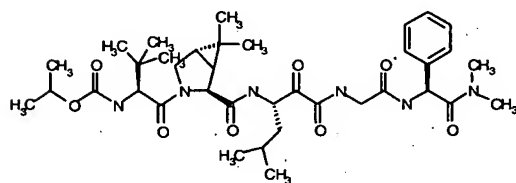
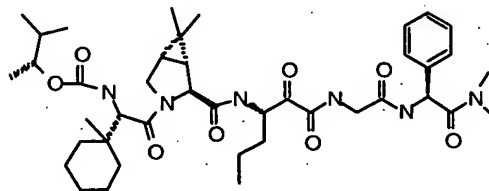
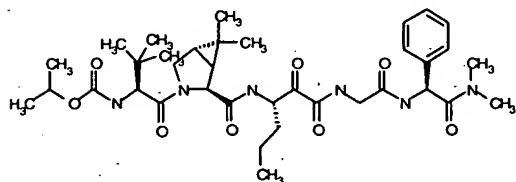
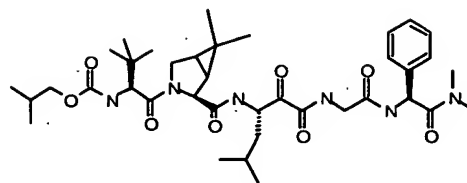
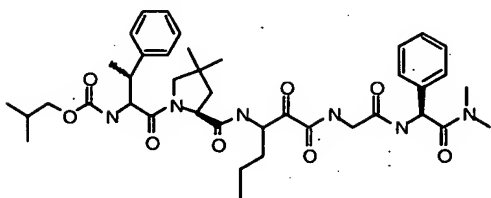




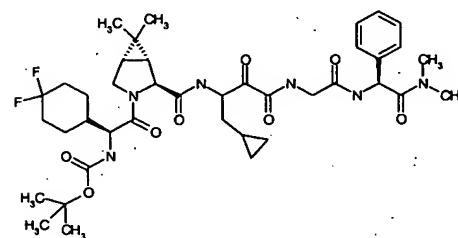
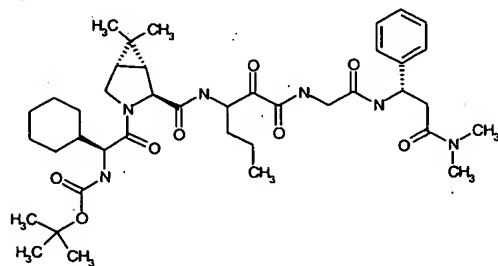
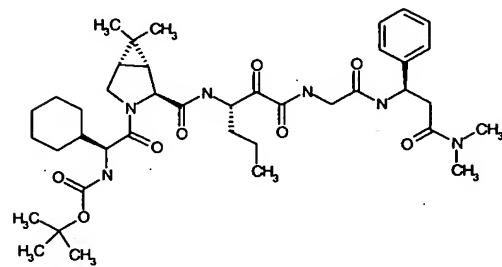
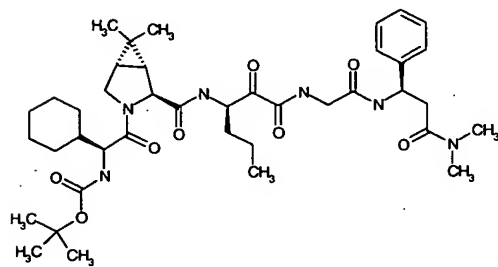
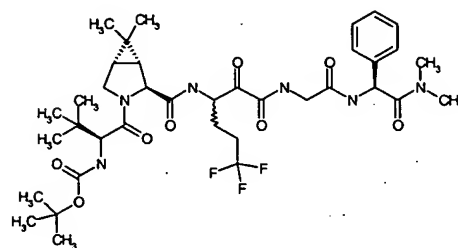
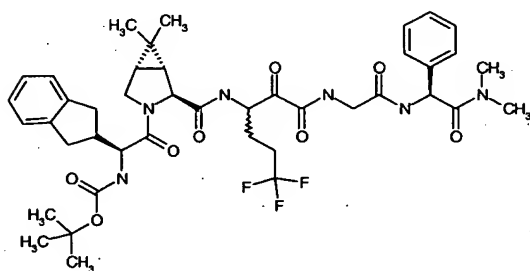
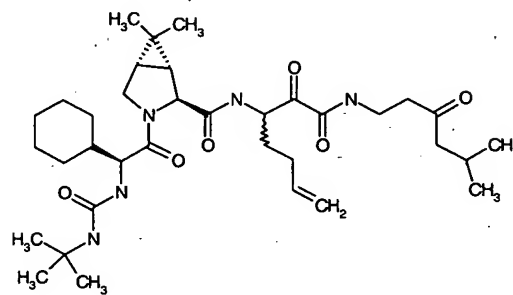
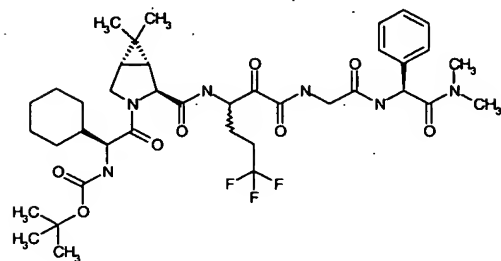
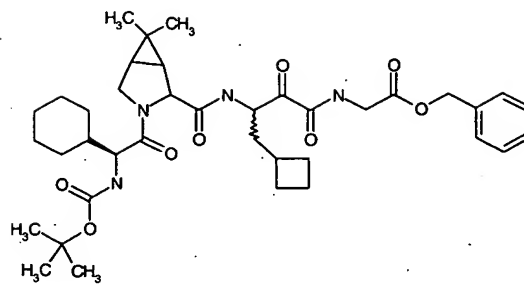
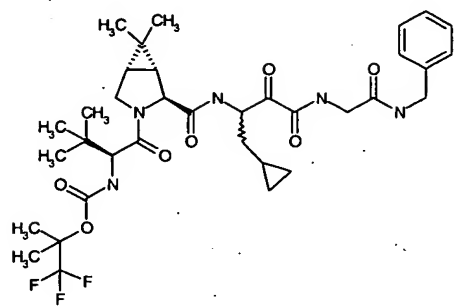


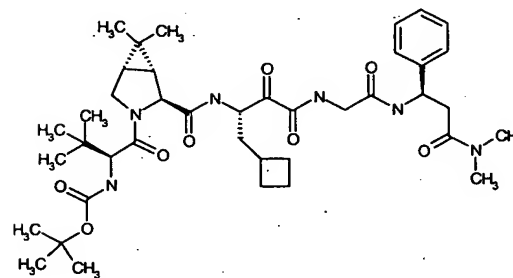
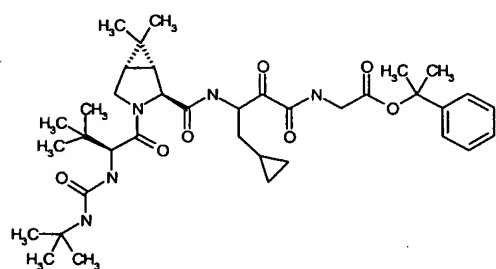
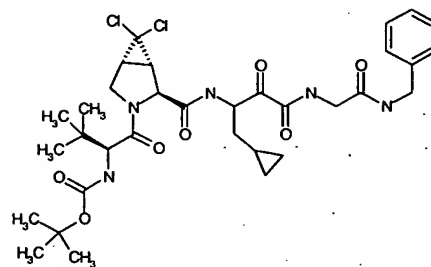
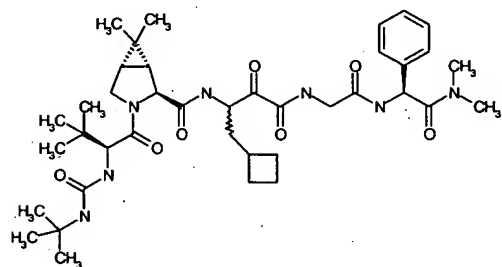
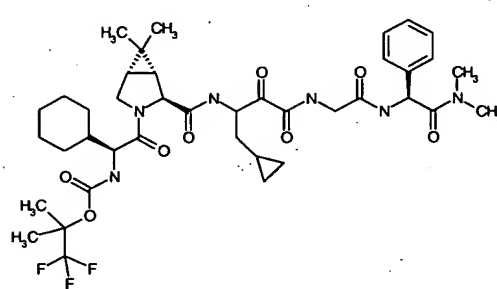
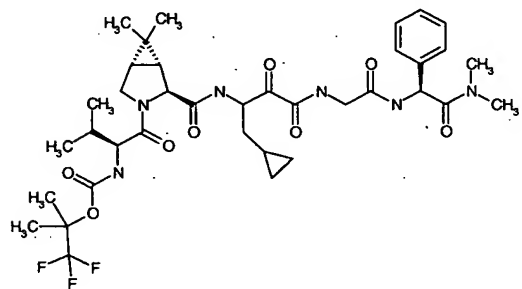
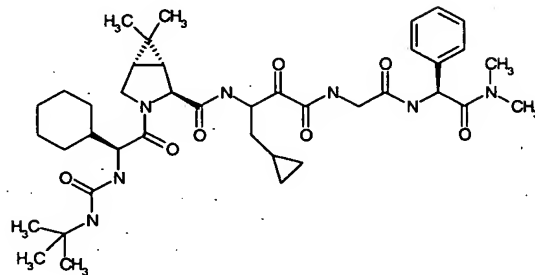
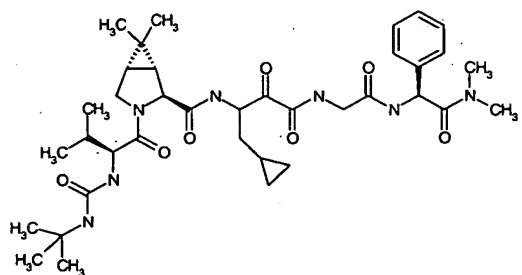
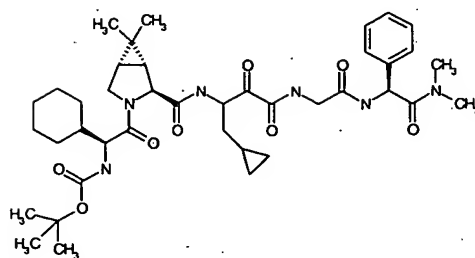
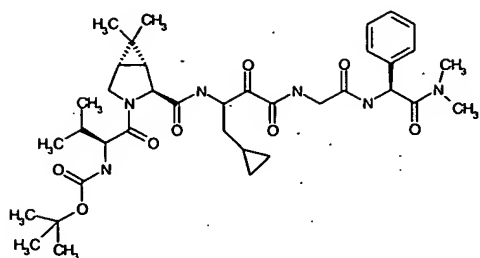


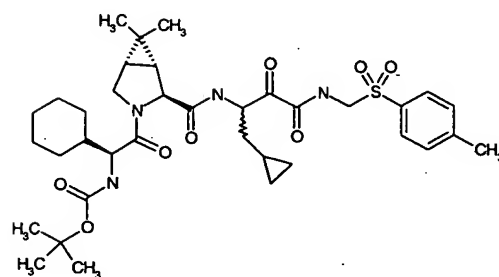
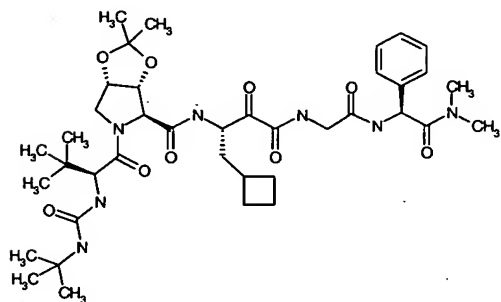
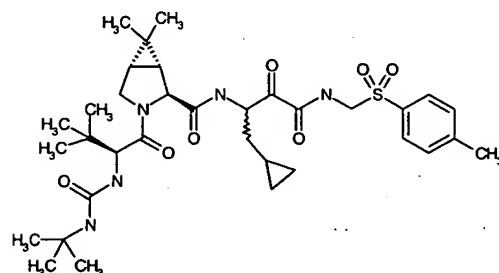
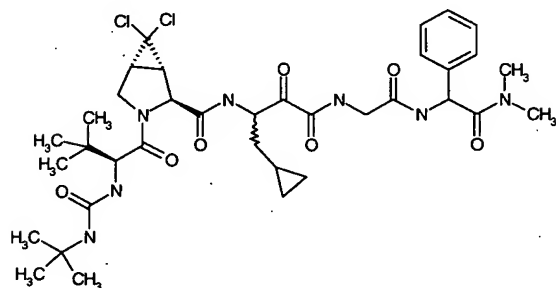
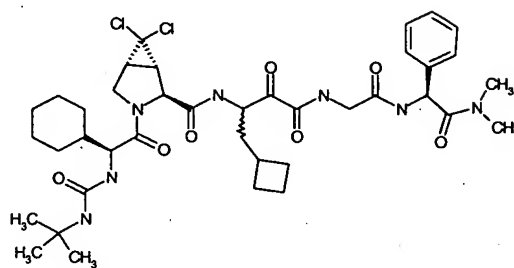
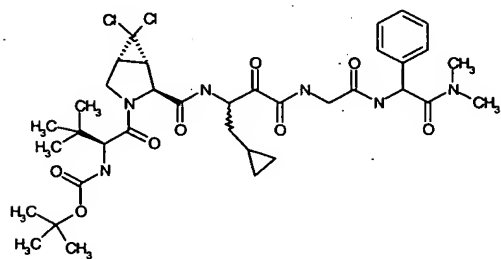
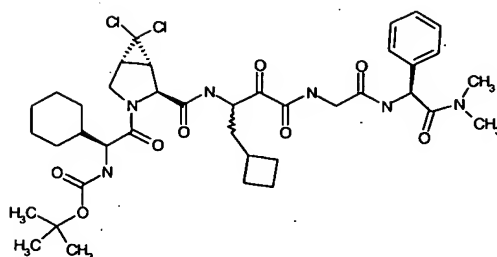
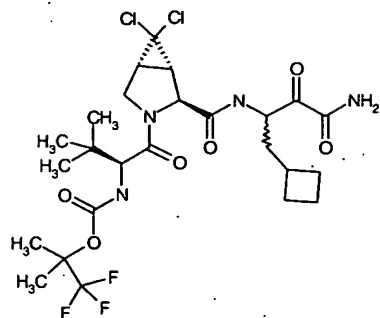


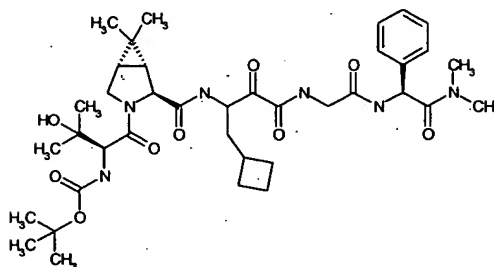
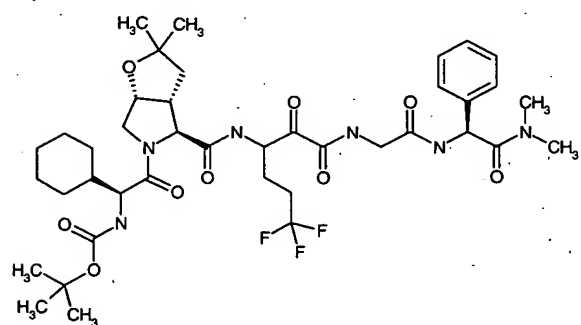
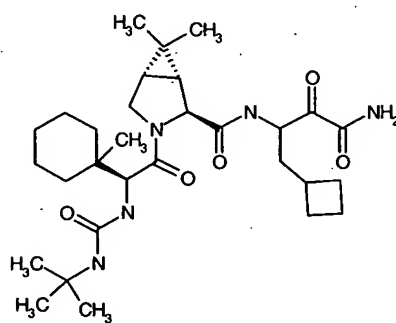
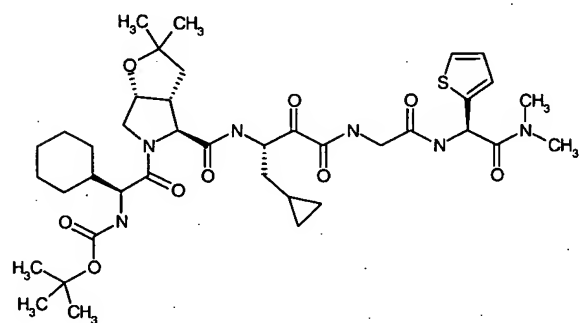
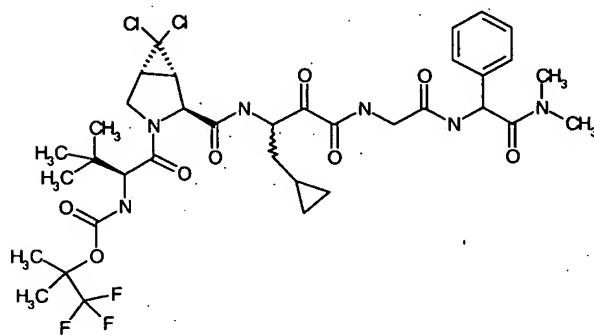
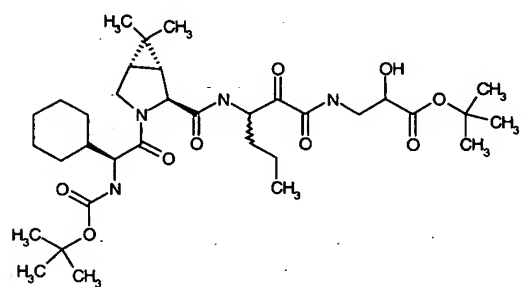
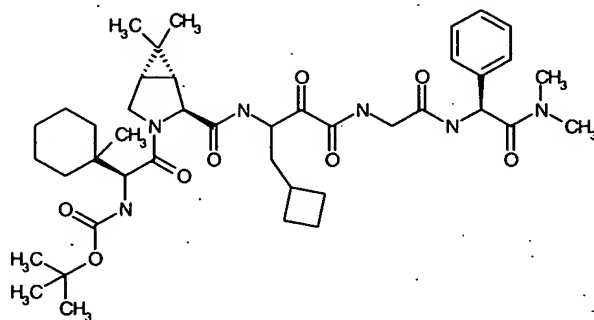
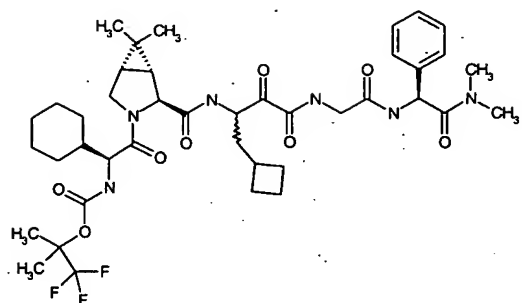


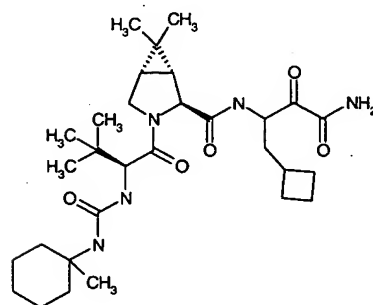
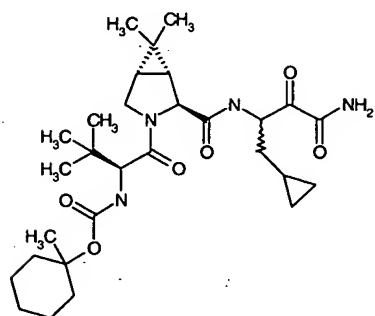
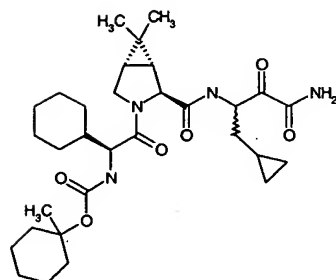
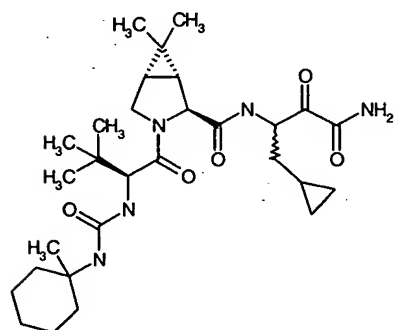
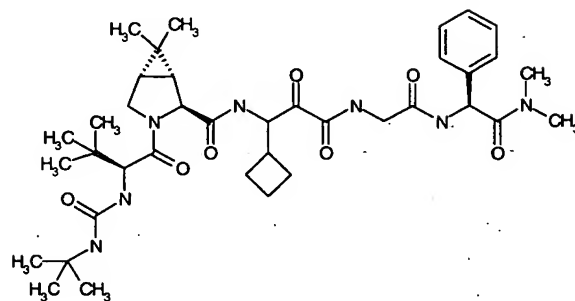
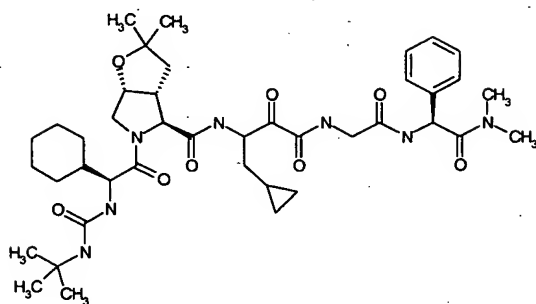
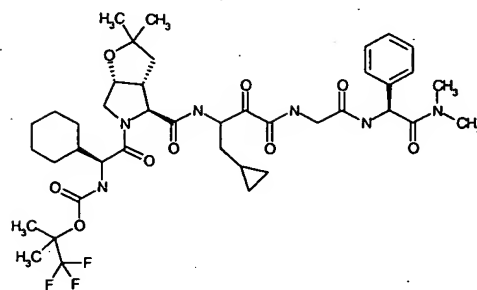
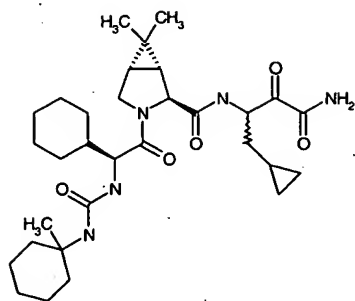


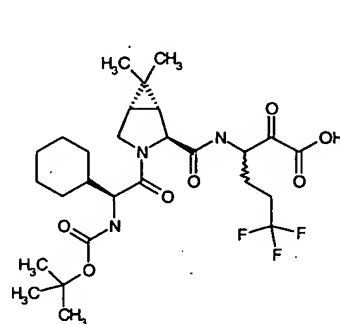
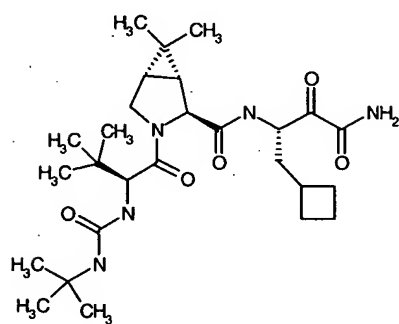
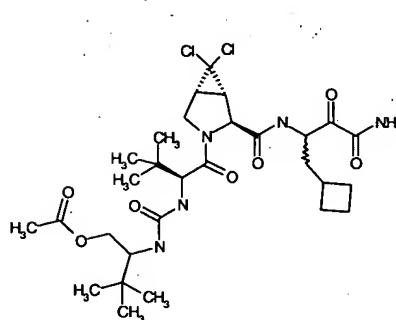
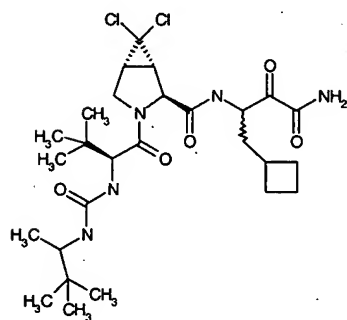
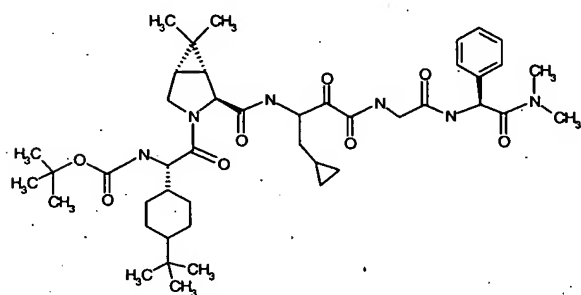
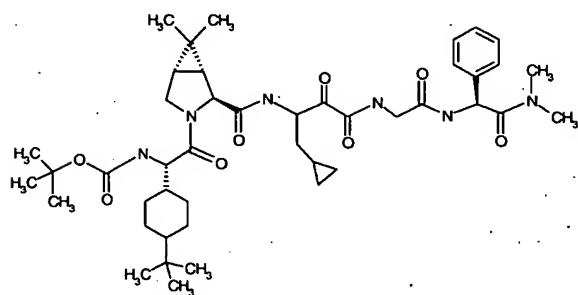
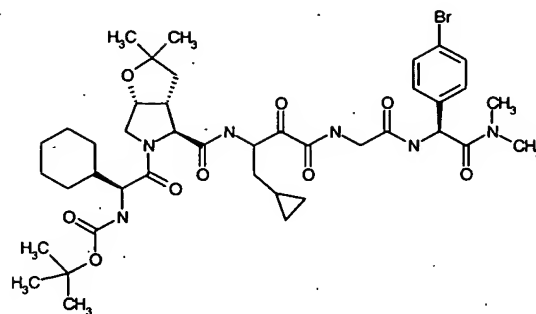
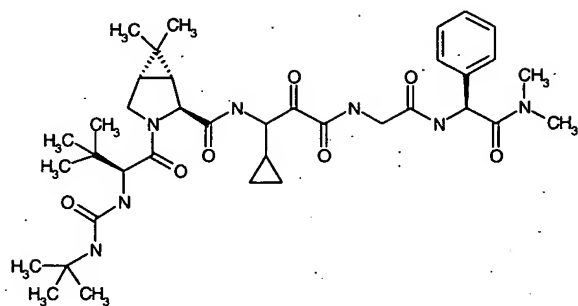


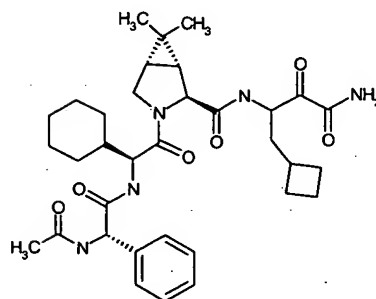
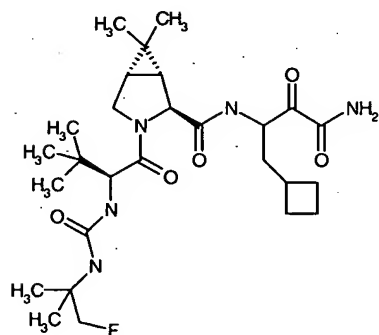
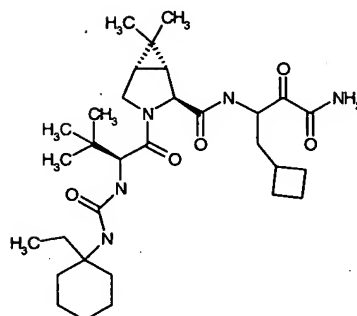
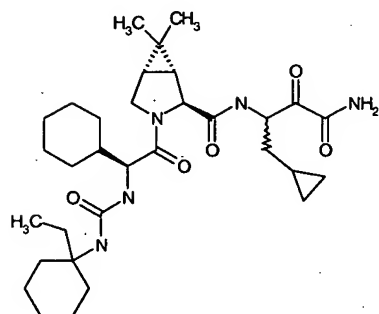
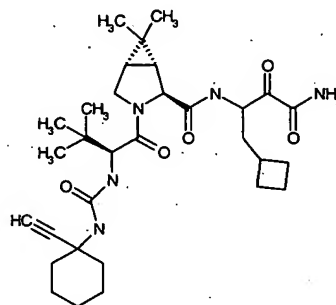
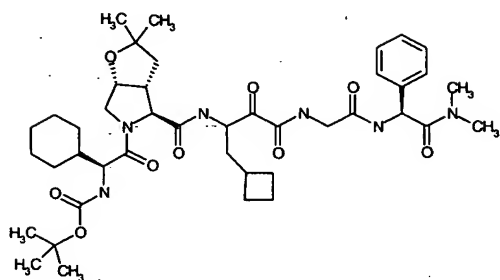
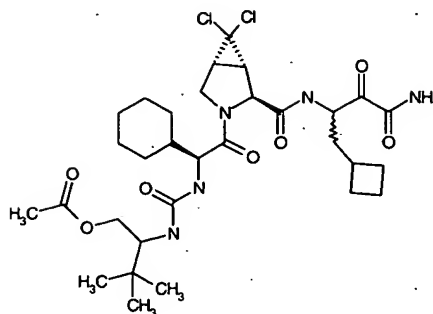
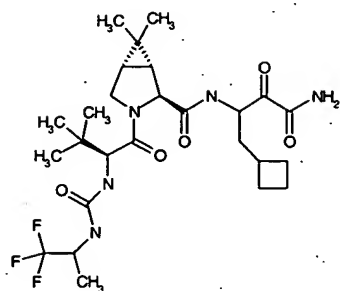


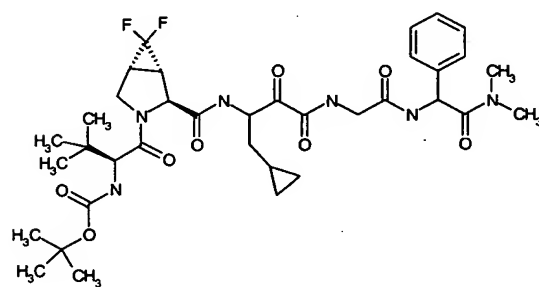
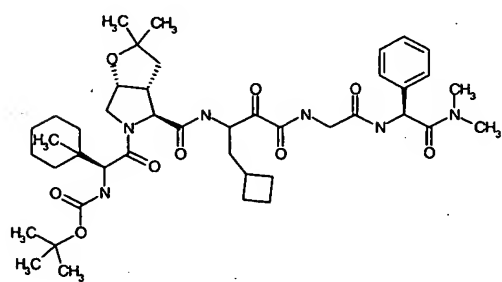
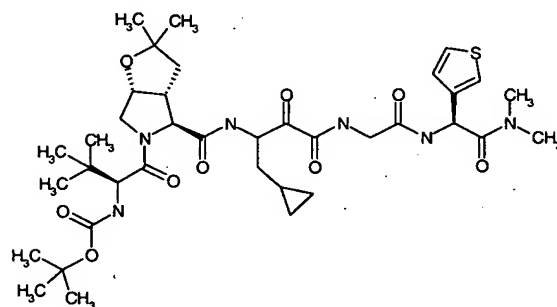
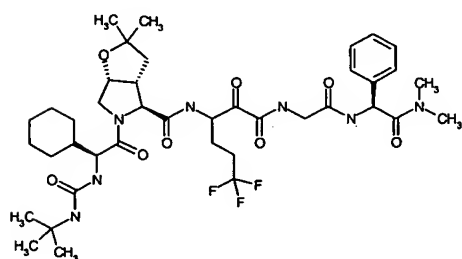
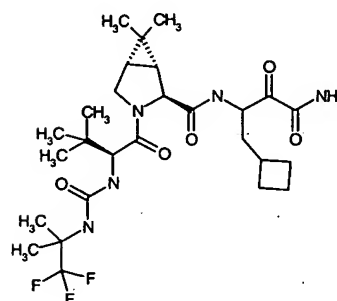
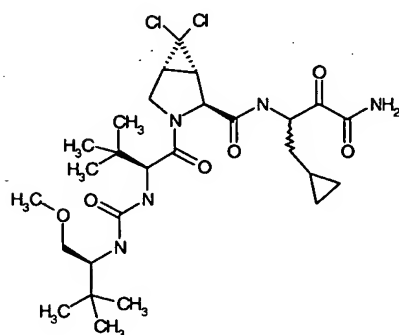
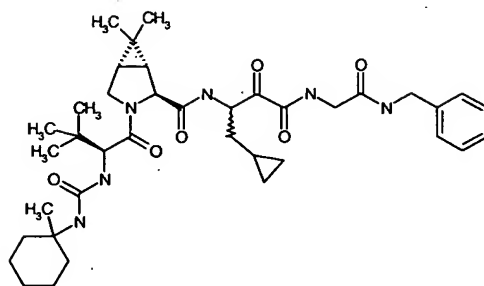
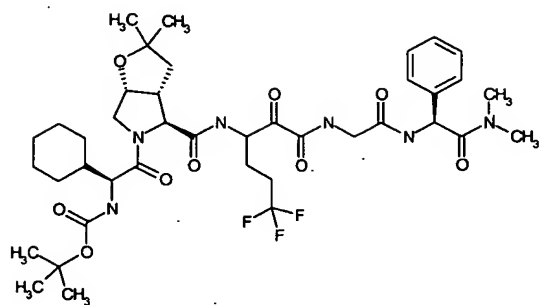




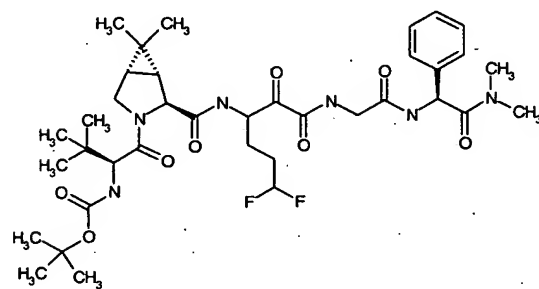
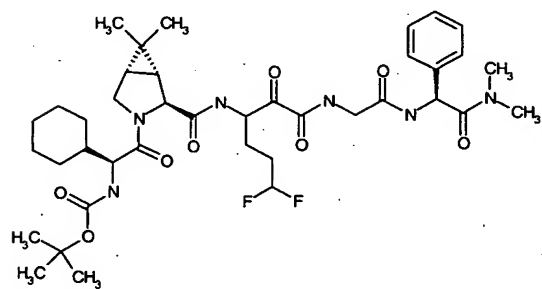
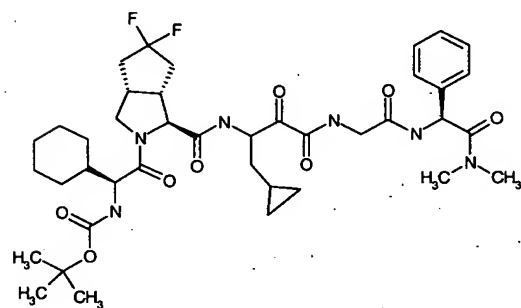
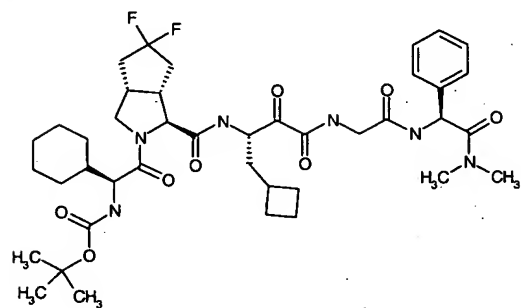
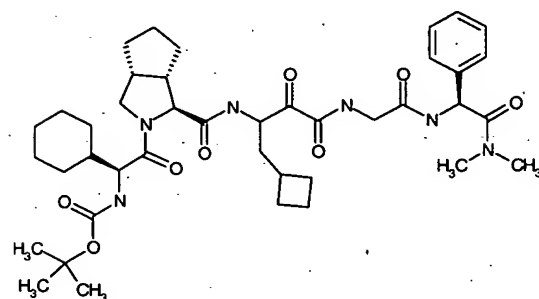
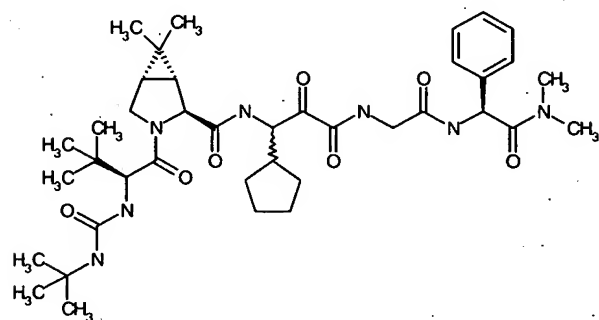
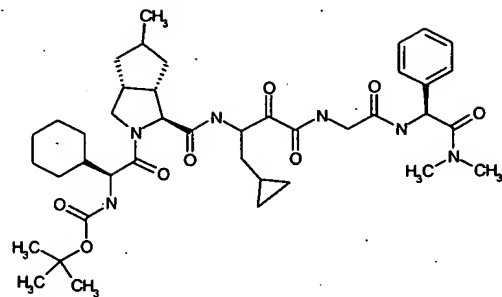
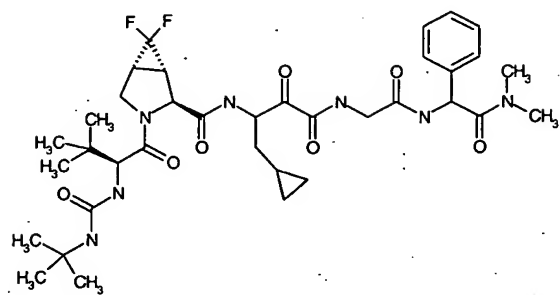


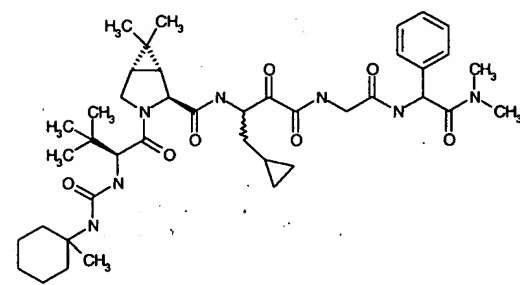
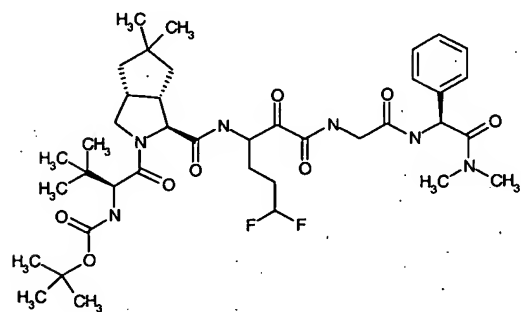
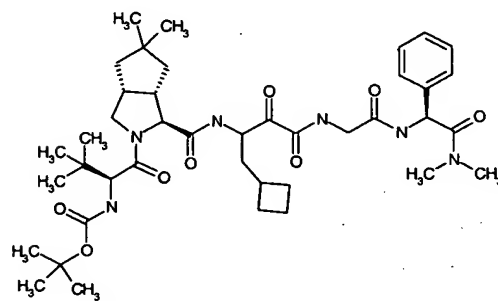
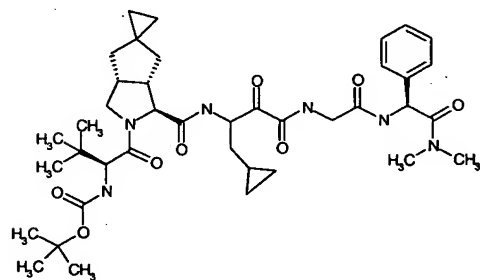
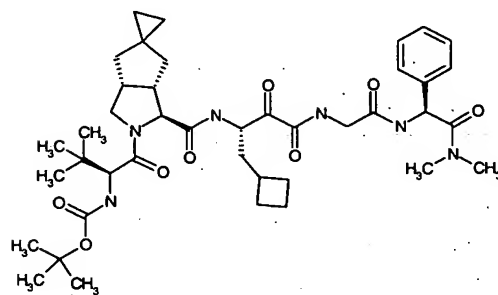
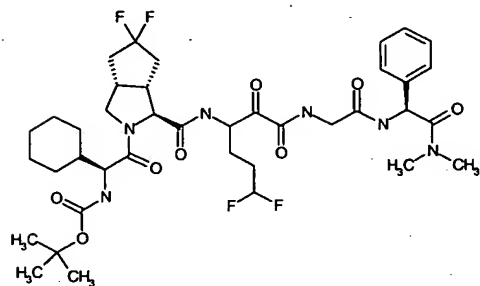
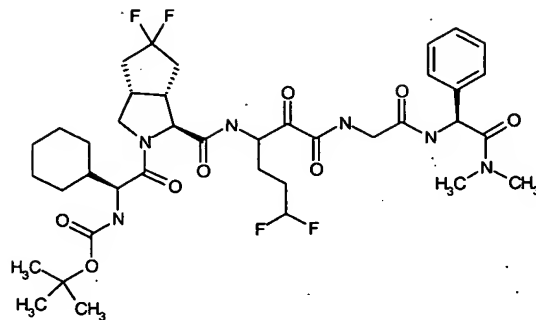
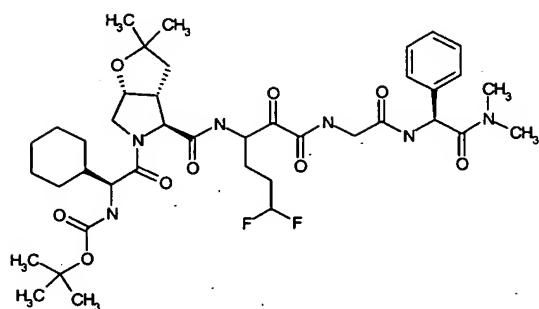


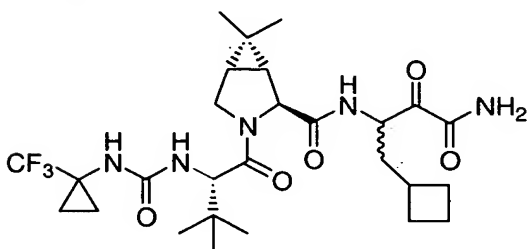
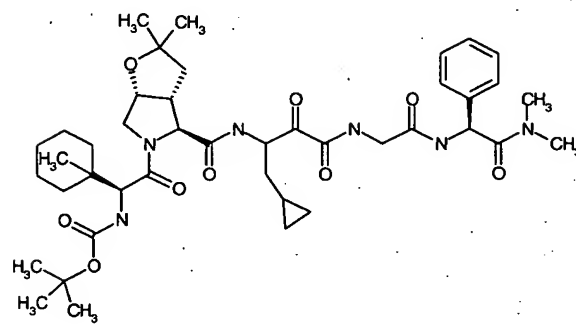
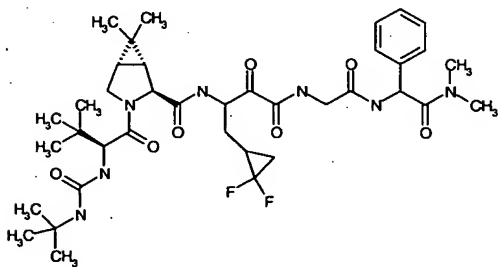
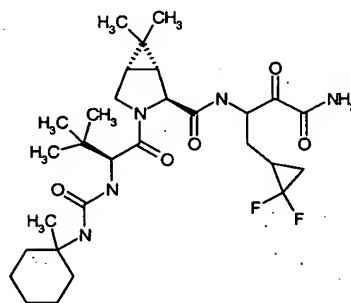
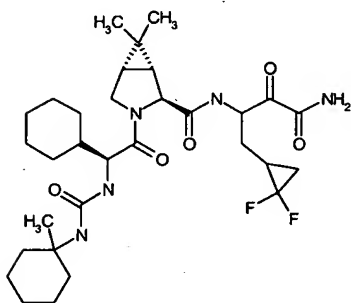
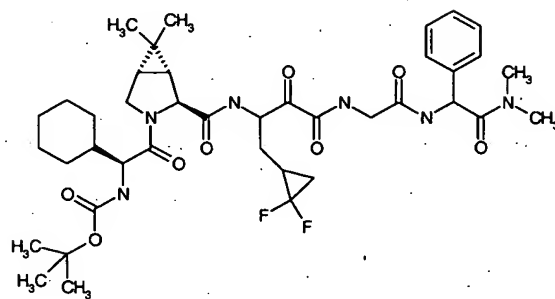
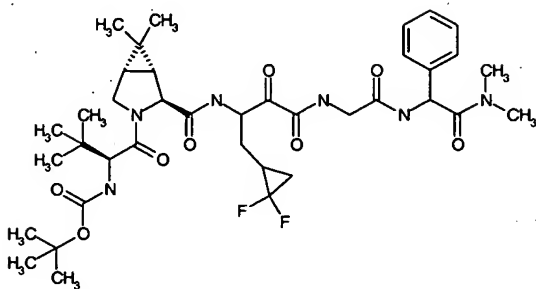
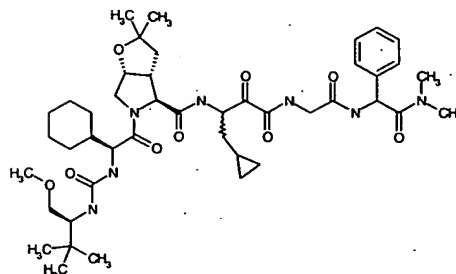
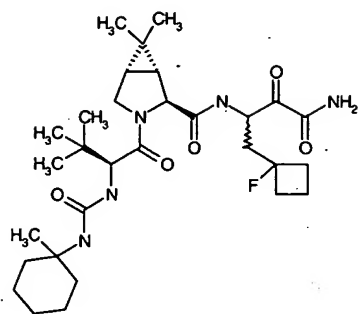












41. (previously presented) A pharmaceutical composition for treating disorders associated with the hepatitis C virus, said composition comprising therapeutically effective amount of one or more compounds in claim 40 and a pharmaceutically acceptable carrier.

42. (original) The pharmaceutical composition of claim 41, additionally containing an antiviral agent.

43. (previously presented) The pharmaceutical composition of claim 42, additionally containing an interferon or pegylated-interferon alpha conjugate.

44. (original) The pharmaceutical composition of claim 43, wherein said antiviral agent is ribavirin and said interferon is  $\alpha$ -interferon.

45. (previously presented) A method of treatment of a hepatitis C virus (HCV) associated disorder, comprising administering an effective amount of one or more compounds of claim 40.

46. (previously presented) A method of modulating the activity of hepatitis C virus (HCV) protease, comprising contacting HCV protease with one or more compounds of claim 40.

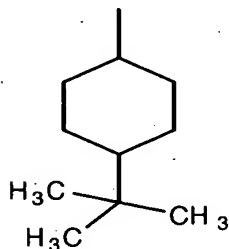
47. (previously presented) A method of treating, or ameliorating one or more symptoms of hepatitis C, comprising administering an effective amount of one or more compounds of claim 40.

48. (original) The method of claim 46, wherein the HCV protease is the NS3/NS4a protease.

49. (original) The method of claim 48, wherein the compound or compounds inhibit HCV NS3/NS4a protease.

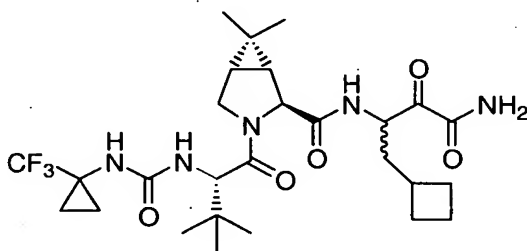
50. (previously presented) A method of modulating the activity of hepatitis C virus (HCV) polypeptide, comprising contacting a composition containing the HCV polypeptide under conditions in which the polypeptide is processed with one or more compounds of claim 40.

51. (original) The compound of claim 8, wherein  $R^3$  is:



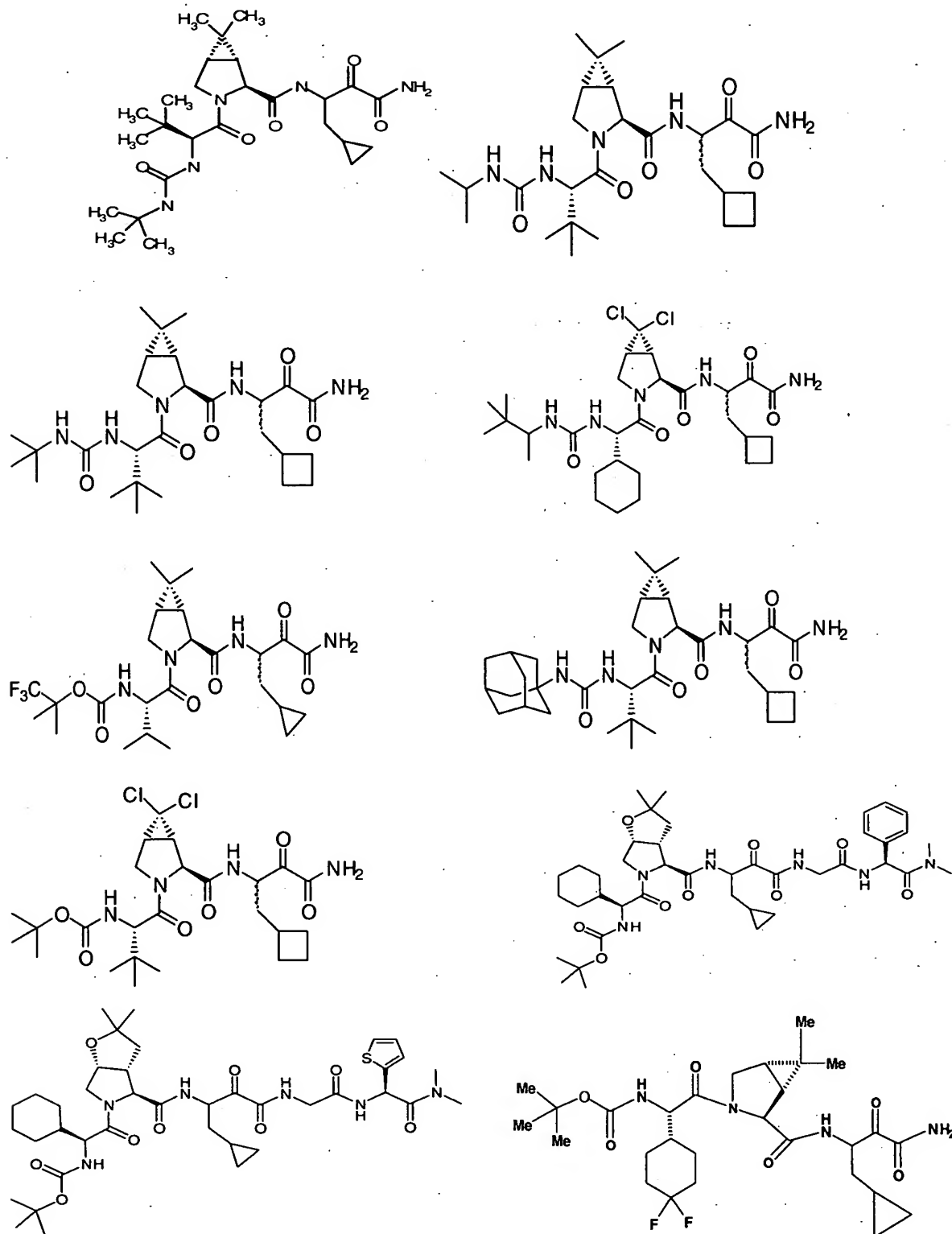
52.-61. (canceled)

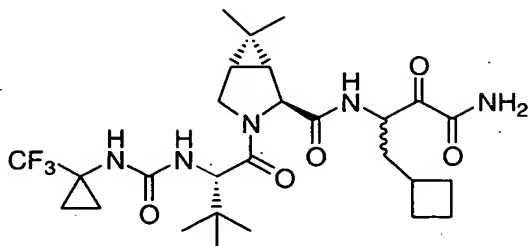
62. (previously presented) A compound exhibiting hepatitis C virus protease inhibitory activity, including enantiomers, stereoisomers, rotamers, tautomers, racemates and prodrug of said compound, and pharmaceutically acceptable salts or solvates of said compound, or of said prodrug, said compound being the compound of structure shown below:



63. (original) A pharmaceutical composition comprising as an active ingredient a compound, including enantiomers, stereoisomers, rotamers, tautomers, racemates and prodrug of said compound, and pharmaceutically acceptable salts or solvates

of said compound, or of said prodrug, said compound being selected from the following:



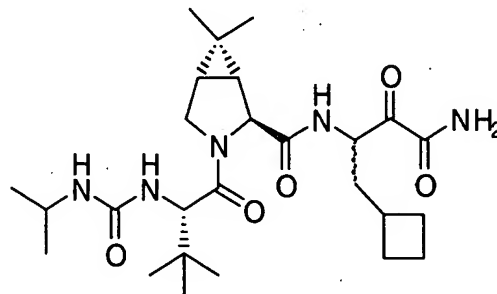
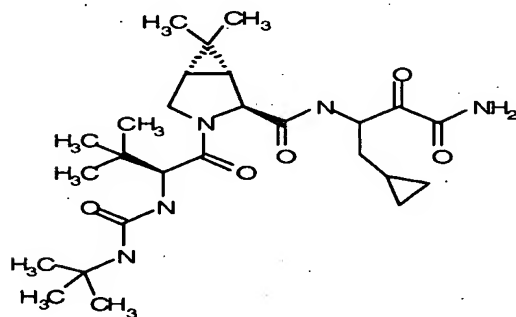


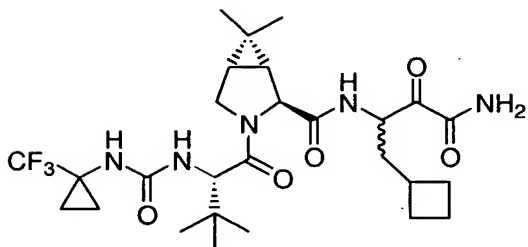
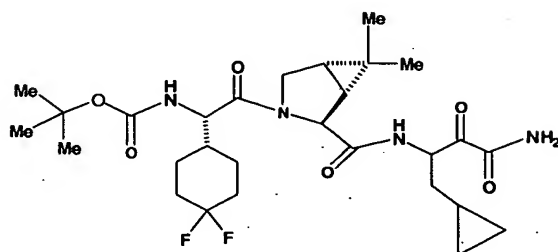
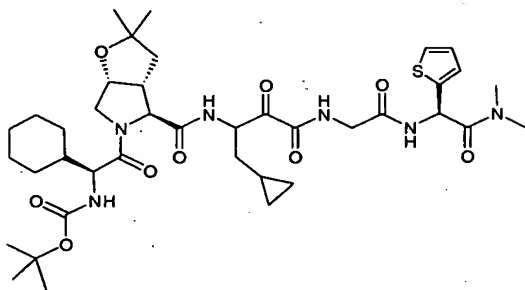
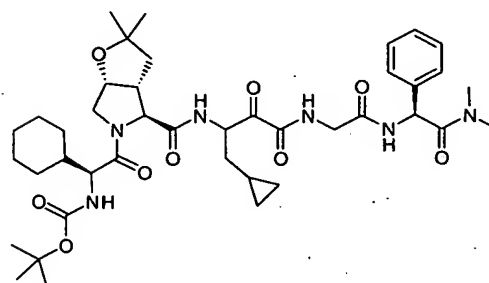
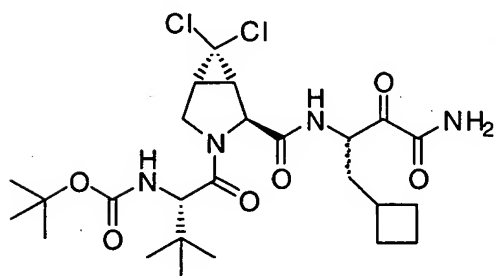
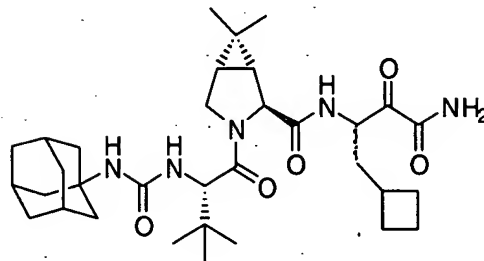
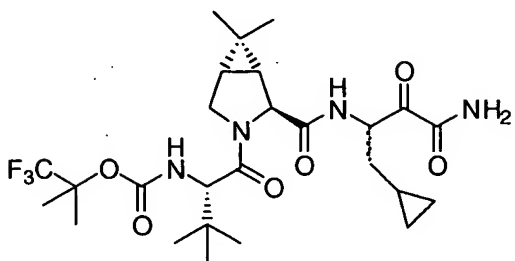
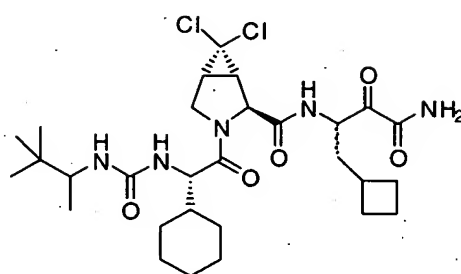
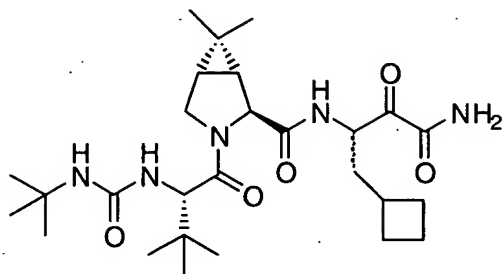
64. (previously presented) The pharmaceutical composition of claim 62, additionally containing an antiviral agent.

65. (previously presented) The pharmaceutical composition of claim 63, further containing an interferon or pegylated-interferon alpha conjugate.

66. (previously presented) The pharmaceutical composition of claim 64, wherein said antiviral agent is ribavirin and said interferon is  $\alpha$ -interferon.

67. (previously presented) A method of treating disorders associated with the hepatitis C virus, said method comprising administering to a patient in need of such treatment, a pharmaceutical composition which comprises therapeutically effective amounts of a compound, including enantiomers, stereoisomers, rotamers, tautomers, racemates and prodrug of said compound, and pharmaceutically acceptable salts or solvates of said compound, or of said prodrug, said compound being selected from the following:

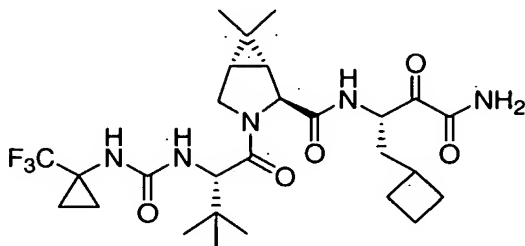




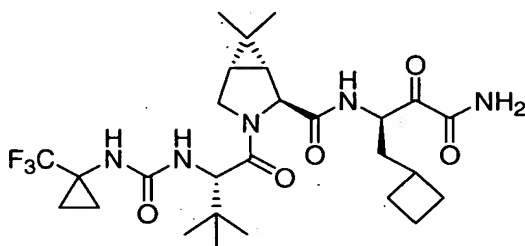
68.-87. (canceled)



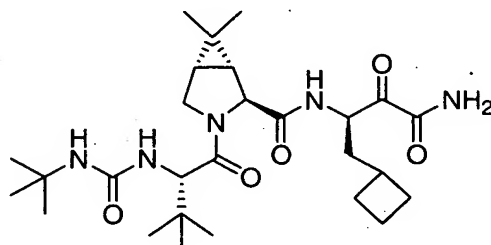
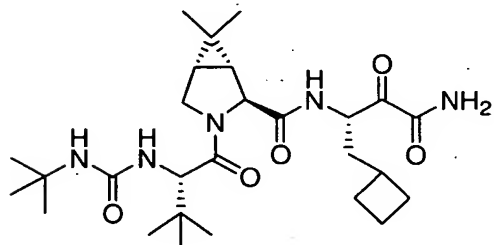
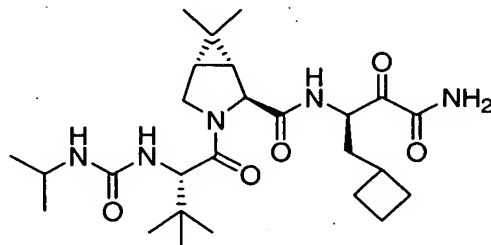
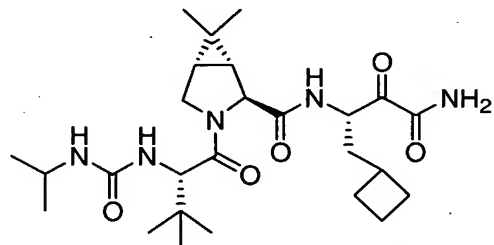
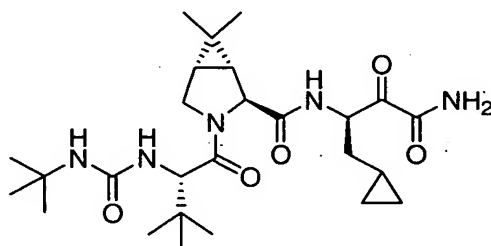
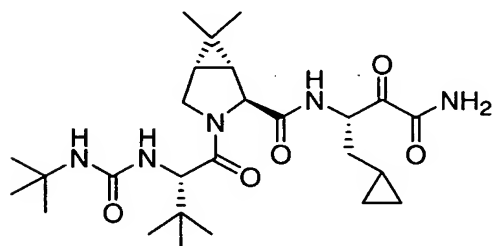
88. (previously presented) A compound of claim 62 having the formula shown below:

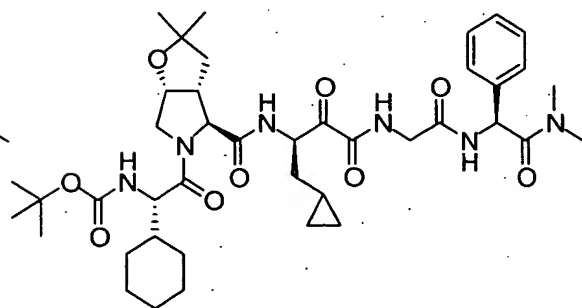
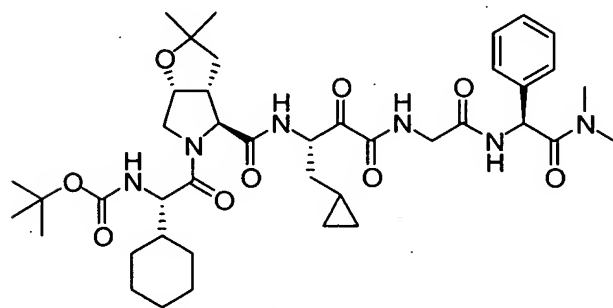
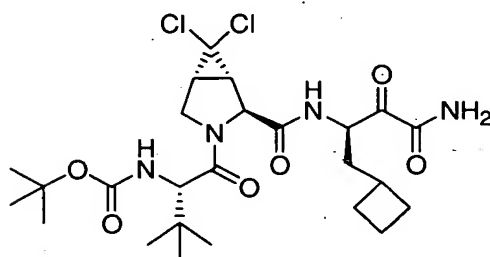
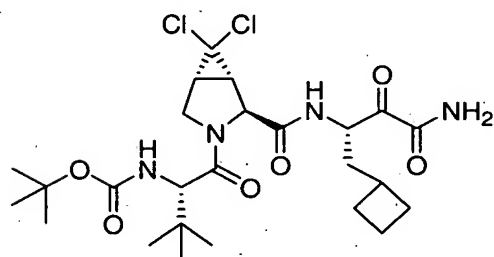
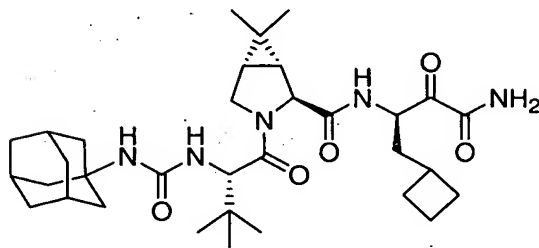
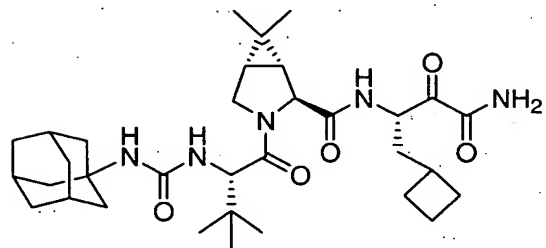
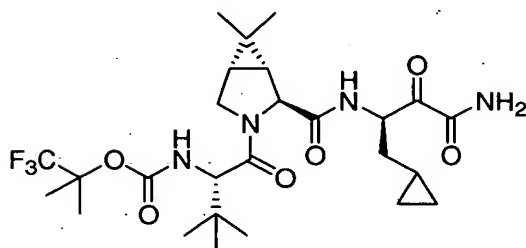
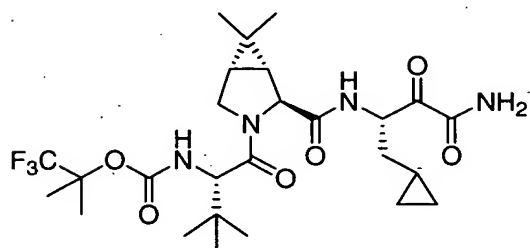
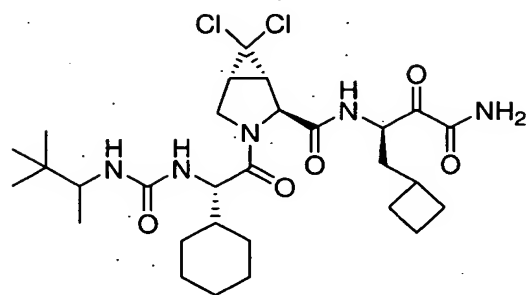
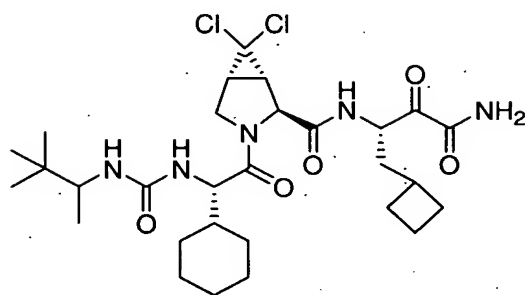


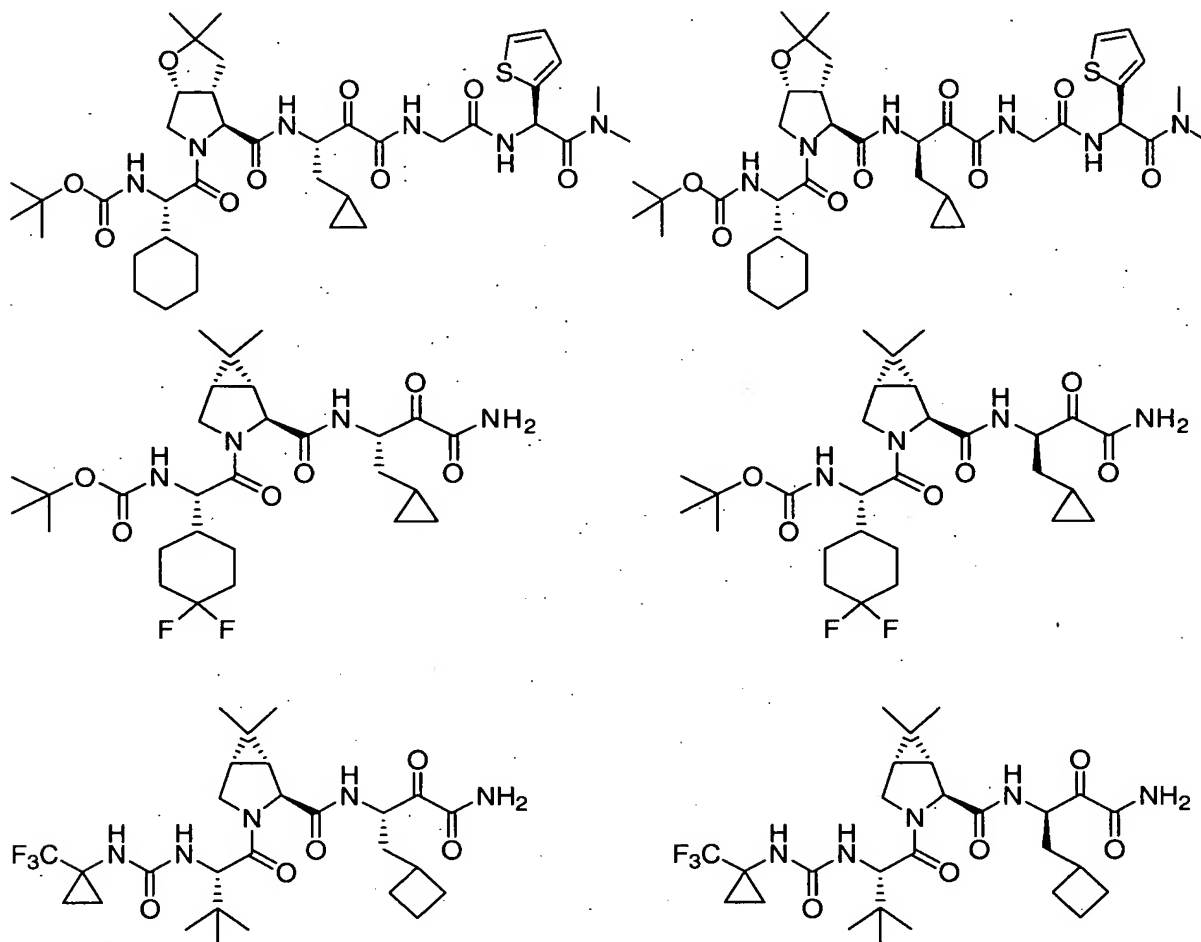
89. (previously presented) A compound of claim 62 having the formula shown below:



90. (previously presented) The pharmaceutical composition of claim 63, wherein said compound is selected from the following:





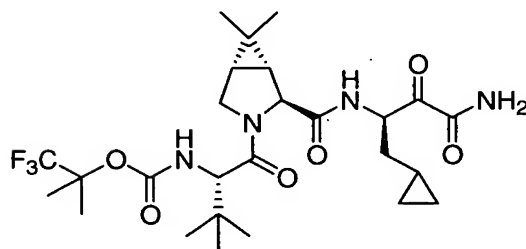
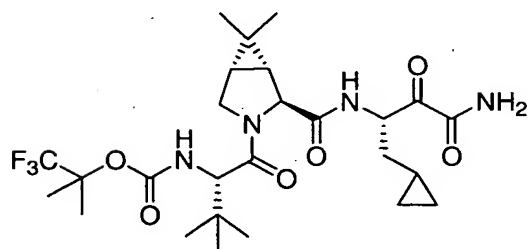
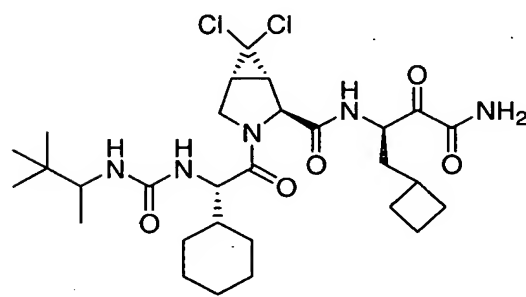
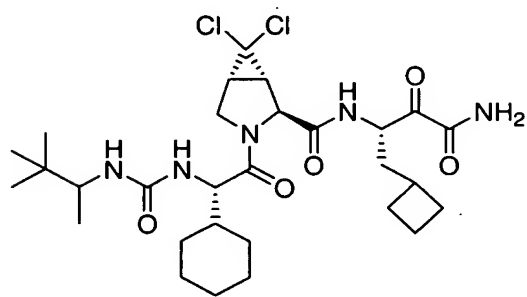
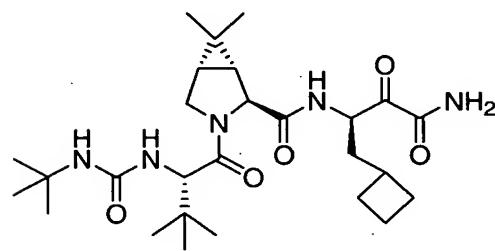
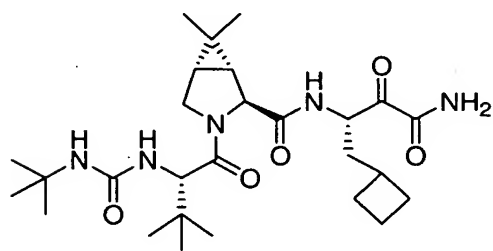
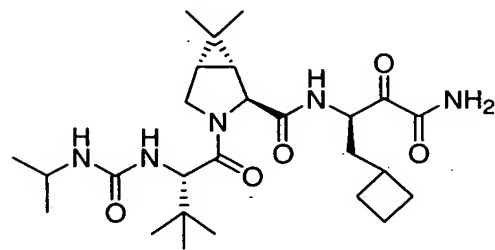
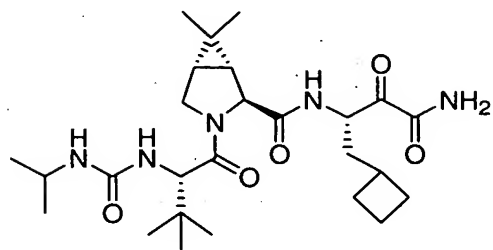
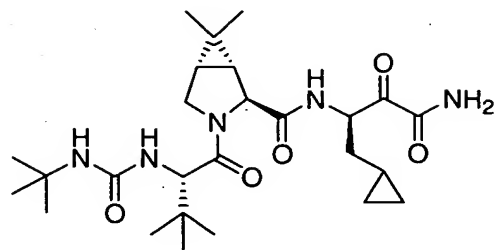
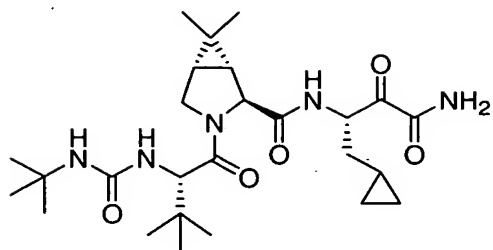


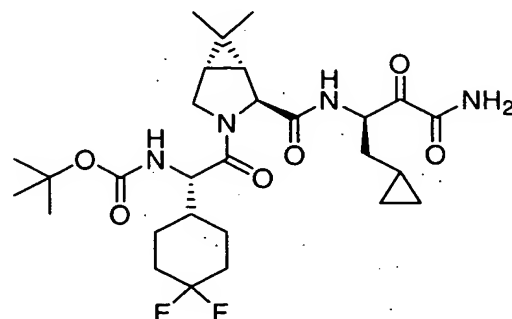
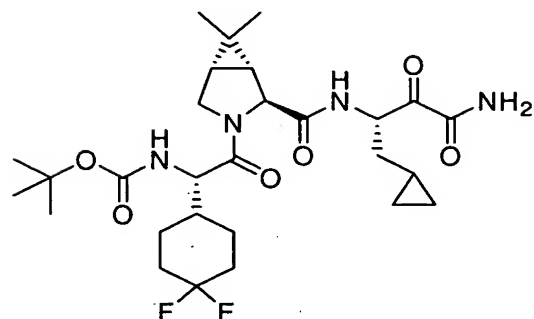
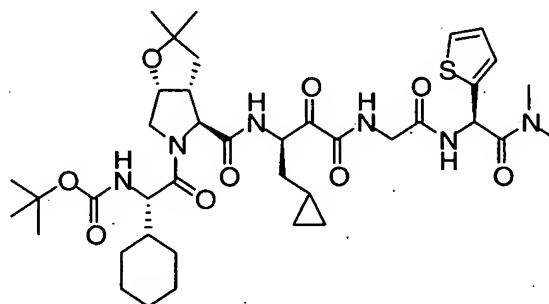
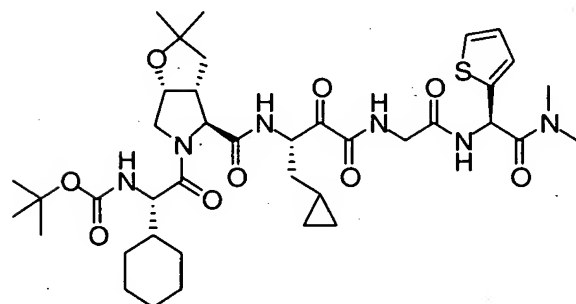
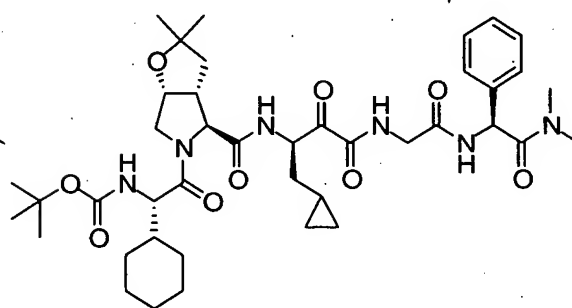
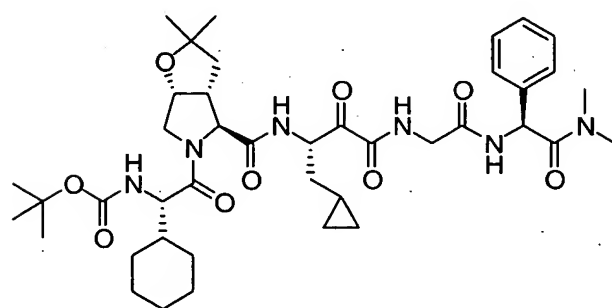
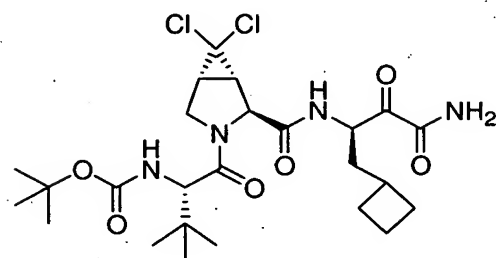
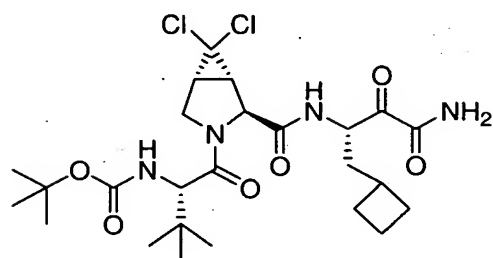
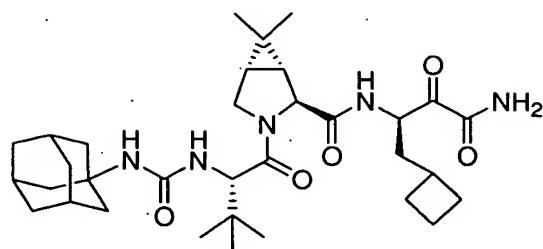
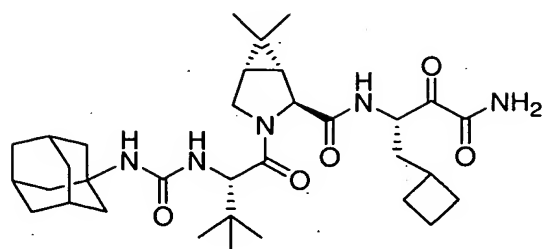
91. (previously presented) The pharmaceutical composition of claim 90, additionally containing an antiviral agent.

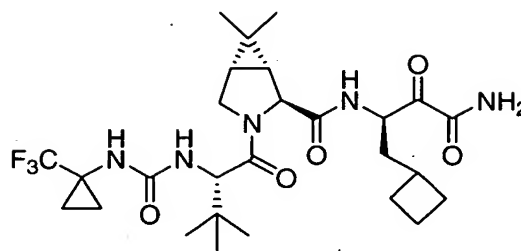
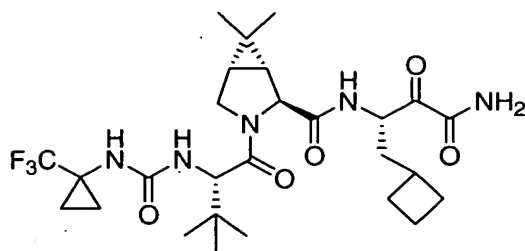
92. (previously presented) The pharmaceutical composition of claim 91, additionally containing an interferon or pegylated-interferon alpha conjugate.

93. (previously presented) The pharmaceutical composition of claim 92, wherein said antiviral agent is ribavirin and said interferon is alpha-interferon.

94. (previously presented) The method of claim 67, wherein said compound is selected from the following:







95. (previously presented) A method of treating disorders associated with the hepatitis C virus (HCV), said method comprising administering to a patient in need of such treatment, a compound of claim 1 and an interferon.

96. (previously presented) The method of claim 95, wherein said interferon is alpha-interferon or pegylated interferon.

97. (previously presented) The method of claim 96, wherein said administration is oral or subcutaneous.

98. (previously presented) A method of treating disorders associated with the hepatitis C virus (HCV), comprising administering to a patient in need of such treatment, a compound of claim 40 and an interferon.

99. (previously presented) The method of claim 98, wherein said interferon is alpha-interferon or pegylated interferon.

100. (previously presented) The method of claim 99, wherein said administration is oral or subcutaneous.

101. (previously presented) A method of treating disorders associated with the hepatitis C virus (HCV), comprising administering to a patient in need of such treatment the pharmaceutical composition of claim 63 and an interferon.

103. (previously presented) The method of claim 102, wherein said administration is oral or subcutaneous.

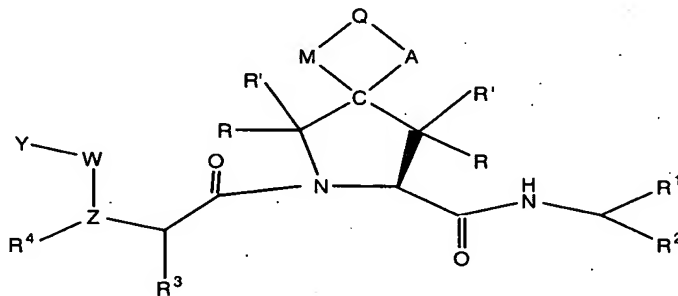
104. (previously presented) The method of claim 95, wherein said treatment further comprises administering an antiviral agent.

105. (previously presented) A method of treating disorders associated with the hepatitis C virus (HCV), comprising administering to a patient in need of such treatment a compound of any one of claims 88 or 89 and an interferon.

106. (previously presented) A method of treating disorders associated with the hepatitis C virus (HCV), comprising administering to a patient in need of such treatment the pharmaceutical composition of claim 90 and an interferon.

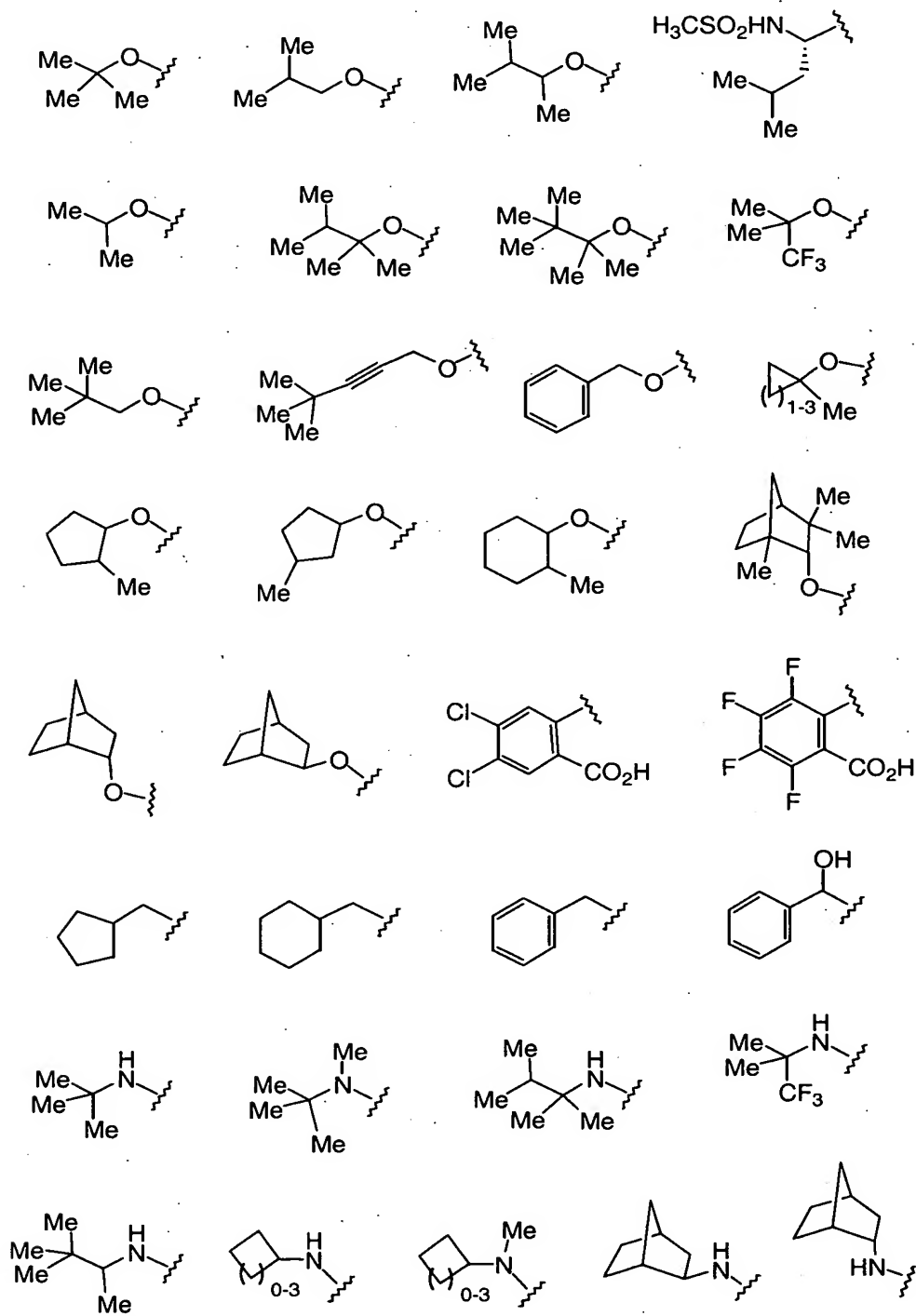
107. (previously presented) The method of claim 94, further comprising administering an interferon.

108. (new) A compound, including enantiomers, stereoisomers, rotamers, tautomers, racemates and prodrug of said compound, and pharmaceutically acceptable salts or solvates of said compound, or of said prodrug, said compound having the general structure shown in Formula II:



II

wherein Y is selected from the group consisting of:



R<sup>1</sup> is COR<sup>5</sup> and R<sup>5</sup> is H, OH, COOR<sup>8</sup>, CONR<sup>9</sup>R<sup>10</sup>, wherein R<sup>8</sup>, R<sup>9</sup> and R<sup>10</sup> are independently selected from the group consisting of H, alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl,



arylalkyl, heteroarylalkyl,  $[\text{CH}(\text{R}^{1'})]_p\text{COOR}^{11}$ ,  
 $[\text{CH}(\text{R}^{1'})]_p\text{CONR}^{12}\text{R}^{13}$ ,  $[\text{CH}(\text{R}^{1'})]_p\text{SO}_2\text{R}^{11}$ ,  $[\text{CH}(\text{R}^{1'})]_p\text{COR}^{11}$ ,  
 $[\text{CH}(\text{R}^{1'})]_p\text{CH}(\text{OH})\text{R}^{11}$ ,  
 $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{COO R}^{11}$ ,  $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{CONR}^{12}\text{R}^{13}$ ,  
 $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{R}'$ ,  $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{CONHCH}(\text{R}^{3'})\text{COO R}^{11}$ ,  
 $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{CONHCH}(\text{R}^{3'})\text{CONR}^{12}\text{R}^{13}$ ,  
 $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{CONHCH}(\text{R}^{3'})\text{CONHCH}(\text{R}^{4'})\text{COO R}^{11}$ ,  
 $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{CONHCH}(\text{R}^{3'})\text{CONHCH}(\text{R}^{4'})\text{CONR}^{12}\text{R}^{13}$ ,  
 $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{CONHCH}(\text{R}^{3'})\text{CONHCH}(\text{R}^{4'})\text{CONHCH}(\text{R}^{5'})\text{COO R}^{11}$  and  
 $\text{CH}(\text{R}^{1'})\text{CONHCH}(\text{R}^{2'})\text{CONHCH}(\text{R}^{3'})\text{CONHCH}(\text{R}^{4'})\text{CONHCH}(\text{R}^{5'})\text{CONR}^{12}\text{R}^{13}$ ,  
 wherein  $\text{R}^{1'}$ ,  $\text{R}^{2'}$ ,  $\text{R}^{3'}$ ,  $\text{R}^{4'}$ ,  $\text{R}^{5'}$ ,  $\text{R}^{11}$ ,  $\text{R}^{12}$ , and  $\text{R}^{13}$  are  
 independently selected from the group consisting of H,  
 alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl, alkyl-  
 aryl, alkyl-heteroaryl, aryl-alkyl and heteroaralkyl;

Z is N and  $\text{R}^4$  is H;

W is C=O;

Q may be present or absent, and when Q is present, Q is CH, N, P,  $(\text{CH}_2)_p$ ,  $(\text{CHR})_p$ ,  $(\text{CRR}')_p$ , O, NR, S, or  $\text{SO}_2$ ; and when Q is absent, M is directly linked to A;

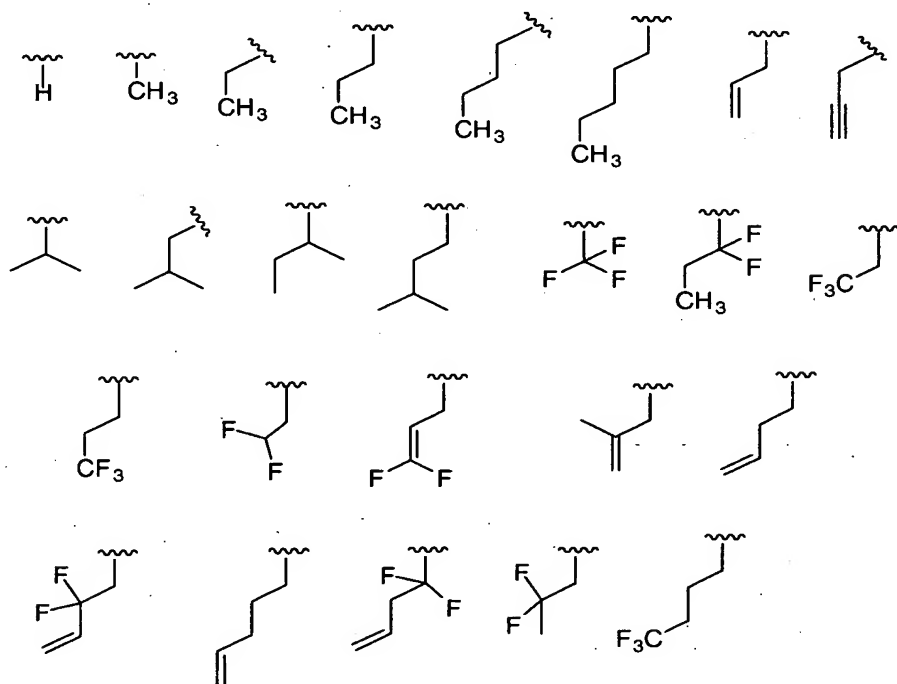
A is O,  $\text{CH}_2$ ,  $(\text{CHR})_p$ ,  $(\text{CHR}-\text{CHR}')_p$ ,  $(\text{CRR}')_p$ , NR, S, or  $\text{SO}_2$ ;

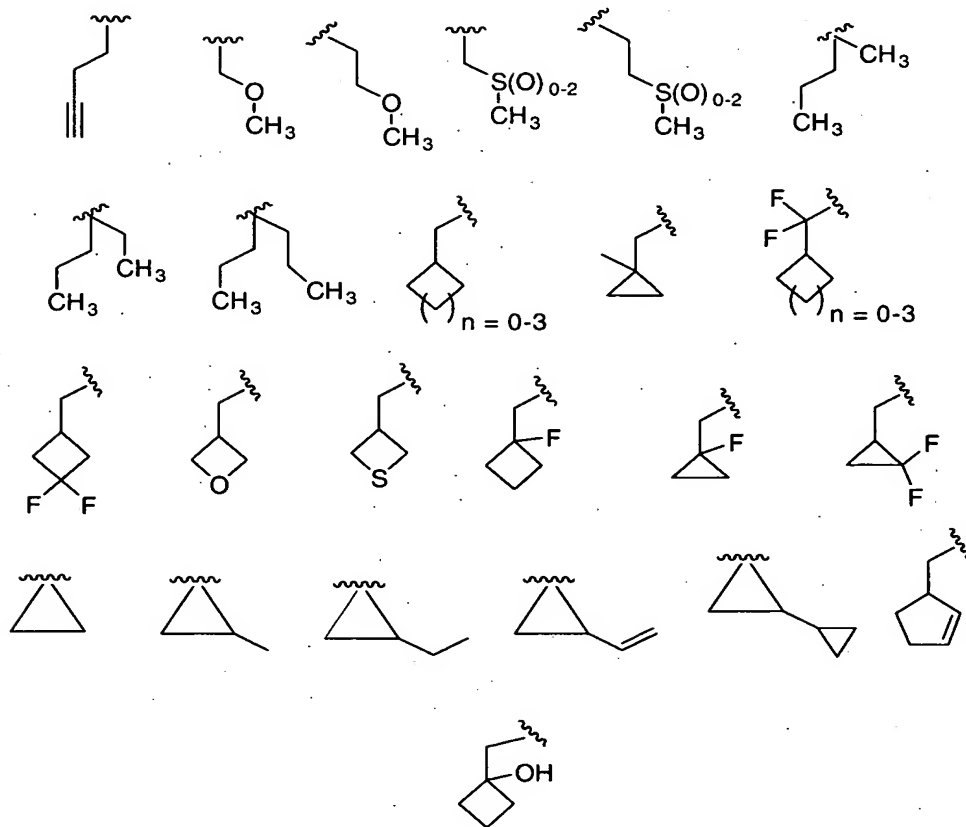
M may be present or absent, and when M is present, M is O, NR, S,  $\text{SO}_2$ ,  $(\text{CH}_2)_p$ ,  $(\text{CHR})_p$ ,  $(\text{CHR}-\text{CHR}')_p$ , or  $(\text{CRR}')_p$ ;

p is a number from 0 to 6; and

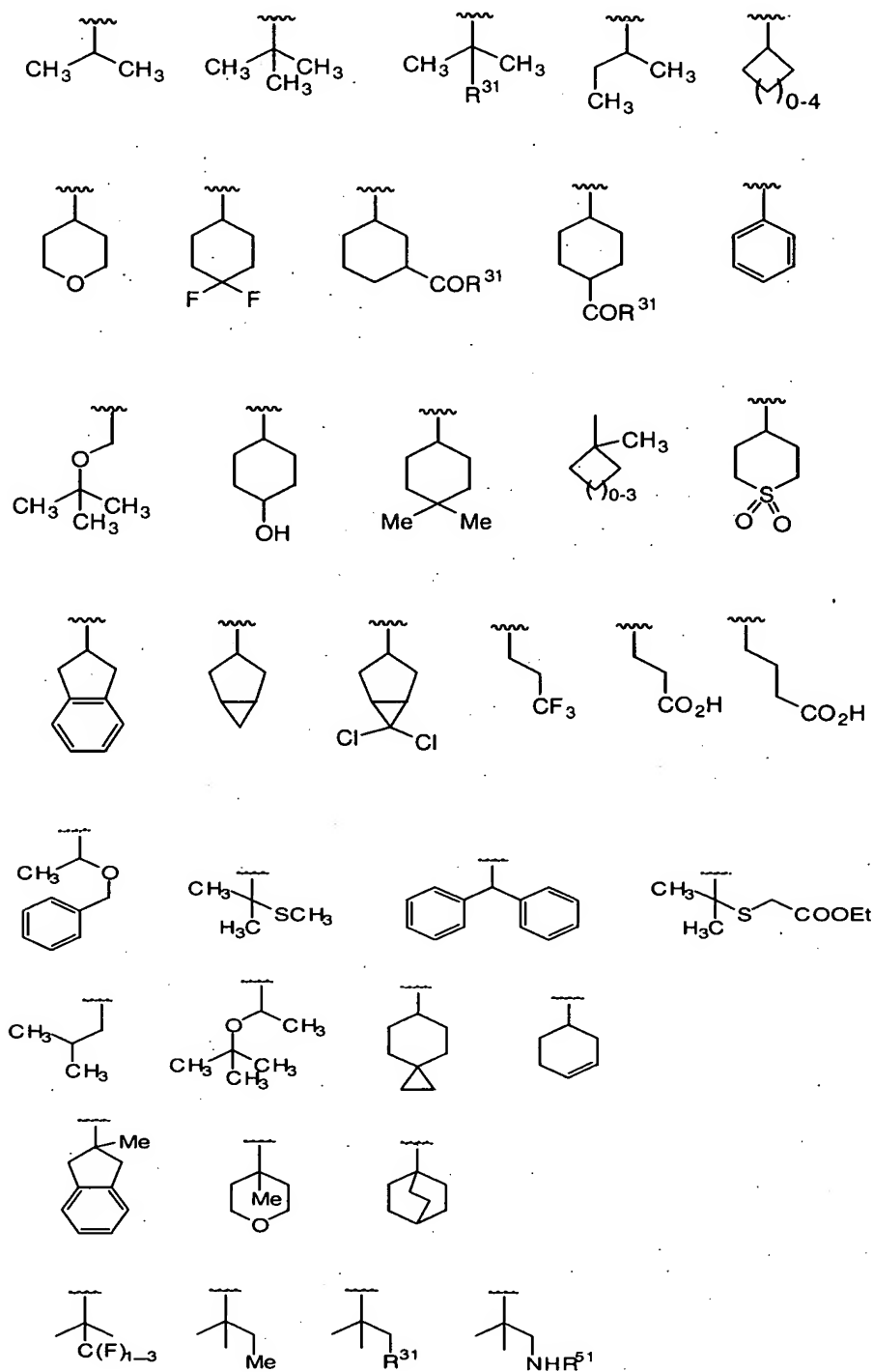
R, and R' are independently selected from the group consisting of H;  $\text{C}_1$ - $\text{C}_{10}$  alkyl;  $\text{C}_2$ - $\text{C}_{10}$  alkenyl;  $\text{C}_3$ - $\text{C}_8$  cycloalkyl;  $\text{C}_3$ - $\text{C}_8$  heterocycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, urea, ketone, aldehyde, cyano, nitro, halogen; (cycloalkyl)alkyl and (heterocycloalkyl)alkyl, wherein said cycloalkyl is made of three to eight carbon atoms, and zero to six oxygen, nitrogen, sulfur, or phosphorus atoms, and said alkyl is of one to six carbon atoms; aryl; heteroaryl; alkyl-aryl; and alkyl-heteroaryl;

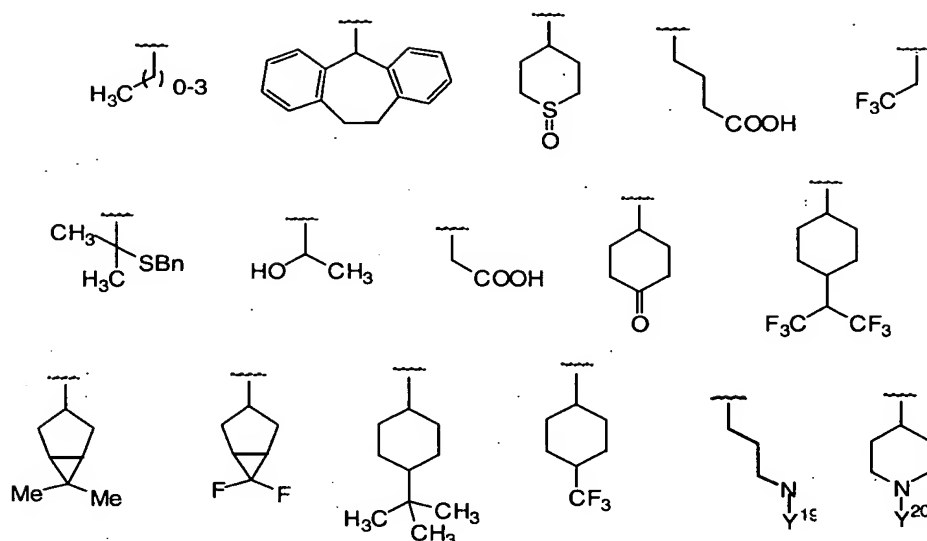
wherein said alkyl, heteroalkyl, alkenyl, heteroalkenyl, aryl, heteroaryl, cycloalkyl and heterocycloalkyl moieties may be optionally and chemically-suitably substituted, with said term "substituted" referring to optional and chemically-suitable substitution with one or more moieties selected from the group consisting of alkyl, alkenyl, alkynyl, aryl, aralkyl, cycloalkyl, heterocyclic, halogen, hydroxy, thio, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, urea, ketone, aldehyde, cyano, nitro, sulfonamido, sulfoxide, sulfone, sulfonyl urea, hydrazide, and hydroxamate; and wherein  $R^2$  is selected from the group consisting of the following moieties:





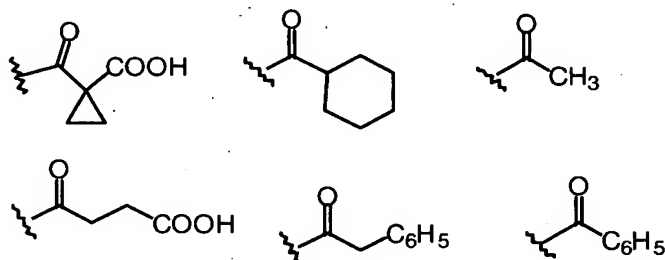
$R^3$  is selected from the group consisting of the following moieties:



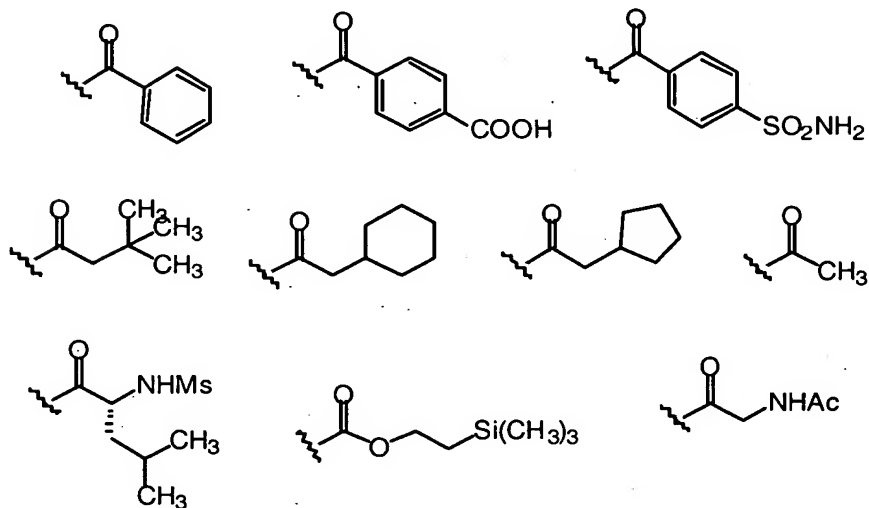


wherein  $R^{31} = \text{OH}$  or  $\text{O-alkyl}$ ; and

$Y^{19}$  is selected from the following moieties:



and  $Y^{20}$  is selected from the following moieties:



; and

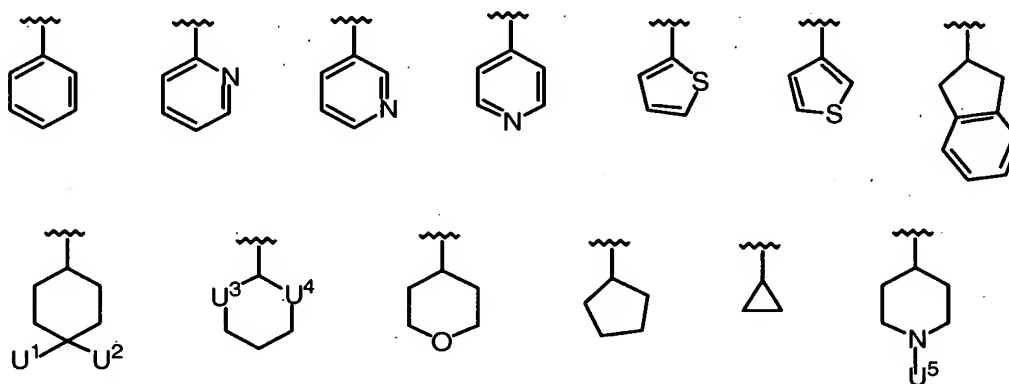
wherein  $R^1$  is  $-\text{C}(\text{O})\text{C}(\text{O})\text{NR}^9\text{R}^{10}$ ;

$R^9$  is  $\text{H}$ ;

$R^{10}$  is H,  $-R^{14}$ ,  $CH(R^{1'})COOR^{11}$ ,  $CH(R^{1'})CH(R^{1'})COOR^{11}$ ,  $CH(R^{1'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CH(R^{1'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CH(R^{1'})SO_2R^{11}$ ,  $CH(R^{1'})CH(R^{1'})SO_2NR^{12}R^{13}$ ,  $CH(R^{1'})CH(R^{1'})COR^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})COOR^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONR^{12}R^{13}$ , or  $CH(R^{1'})CONHCH(R^{2'})(R')$ , wherein  $R^{14}$  is H, alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl, alkyl-aryl, alkyl-heteroaryl, aryl-alkyl, alkenyl, alkynyl or heteroaralkyl; wherein  $R^{1'}$  is H or alkyl, and  $R^{2'}$  is phenyl, substituted phenyl, hetero atom-substituted phenyl, thiophenyl, cycloalkyl, piperidyl or pyridyl; and wherein  $R^{11}$  is H, methyl, ethyl, allyl, *tert*-butyl, benzyl,  $\alpha$ -methylbenzyl,  $\alpha,\alpha$ -dimethylbenzyl, 1-methylcyclopropyl or 1-methylcyclopentyl;

$R'$  is hydroxymethyl or  $CH_2CONR^{12}R^{13}$ ;

$R^{2'}$  is independently selected from the group consisting of:



wherein:

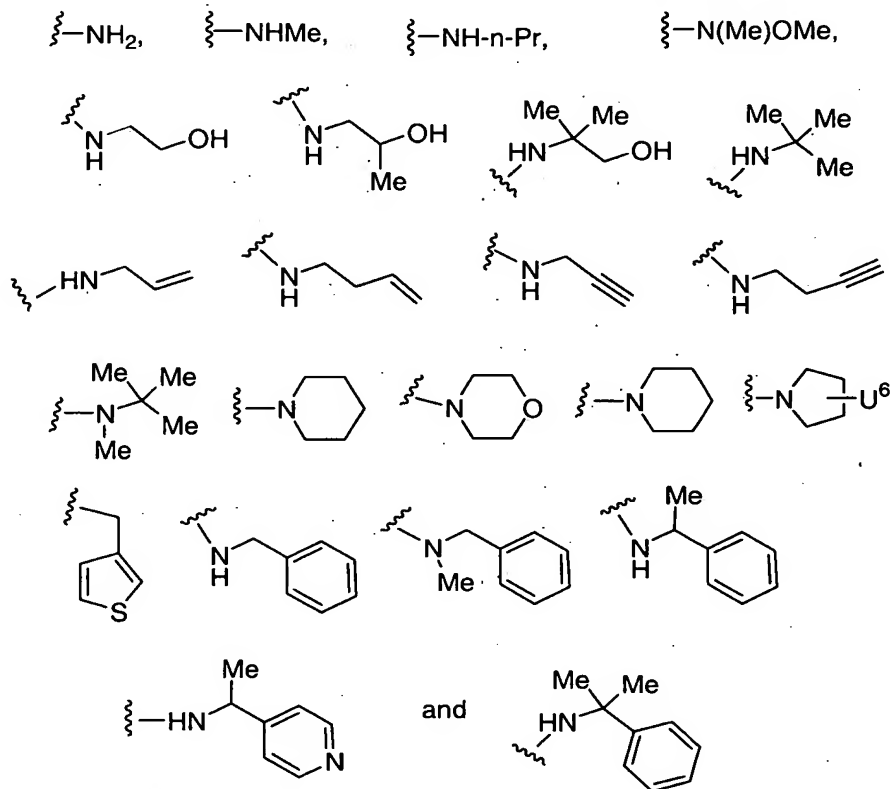
$U^1$  and  $U^2$  may be same or different and are selected from H, F,  $CH_2COOH$ ,  $CH_2COOMe$ ,  $CH_2CONH_2$ ,  $CH_2CONHMe$ ,  $CH_2CONMe_2$ , azido, amino, hydroxyl, substituted amino, substituted hydroxyl;

$U^3$  and  $U^4$  may be same or different and are selected from O and S;

$U^5$  is selected from the moieties consisting of alkyl sulfonyl, aryl sulfonyl, heteroalkyl sulfonyl, heteroaryl sulfonyl, alkyl carbonyl, aryl carbonyl, heteroalkyl carbonyl, heteroaryl carbonyl, alkoxycarbonyl, aryloxycarbonyl,

heteroaryloxycarbonyl, alkylaminocarbonyl, arylaminocarbonyl, heteroarylaminocarbonyl or a combination thereof;

and  $\text{NR}^{12}\text{R}^{13}$  is selected from the group consisting of:



wherein  $\text{U}^6$  is H, OH, or  $\text{CH}_2\text{OH}$ , and

$\text{R}^{14}$  is selected from the group consisting of: H, Me, Et, *n*-propyl, methoxy, cyclopropyl, *n*-butyl, 1-but-3-ynyl, benzyl,  $\alpha$ -methylbenzyl, phenethyl, allyl, 1-but-3-enyl, OMe, cyclopropylmethyl.

109. (new) The compound of claim 108, wherein the portion of Formula II between and including  $\text{C}=\text{O}$  is selected from the following structures:

